# THE EXCAVATIONS AT

# KAUŚĀMBĪ

1957-59

G. R. SHARMA

UNIVERSITY OF ALLAHABAD
QUOT RAMI TOT ARBORES

State Museum,
LUCKNOW.

*Institute of Archaeology, Allahabad University Publication No.* 1

# THE EXCAVATIONS AT KAUŚĀMBĪ

## (1957-59)

### The Defences and the Śyenaciti of the Puruṣamedha

राजकीय संग्रहालय, लखनऊ
क्रमसंख्या 658
प्राप्ति तिथि 17.1.61
विभाग
श्रेणी
STATE MUSEUM, LUCKNOW

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# PREFACE

Field Archaeology is one of the latest arrivals in the portals of the Indian universities. It needed, indeed, the vision of a Director General of Archaeology of a statute no less than that of Sir Mortimer Wheeler to realise that 'archaeology, like other sciences, can flourish only on a basis of healthy emulation and informed criticism' and, as a corollary, 'the Indian universities, like other universities throughout the world, must enter the field and join the fray.' It was in pursuance of this policy that he permitted the University of Allahabad to conduct the excavations at Kauśāmbī. His successors have not only maintained this tradition but have also further extended thebounds of co-operation between the Union Department of Archaeology on the one hand, and the universities and other institutions engaged in field archaeology on the other. Undoubtedly, the remarkable advancement of Indian archaeology, during the last decade, is largely due to this liberal policy.

I owe the deepest and the foremost debt to my teachers Pt. K. Chaṭṭopādhyāya, who initiated me in the Vedic studies and Dr. (now Sir) Mortimer Wheeler from whom I had my first lessons in field archaeology.

In the archaeological enterprise of the University, I have received help from numerous persons, both within and outside the university. To Dr. Sampurnanand, Chief Minister of U.P., I am grateful for the personal interest he has always taken in this matter. I gratefully acknowledge the help I received at various stages from the Vice-Chancellors of the University—Dr. Amara Natha Jha, Dr. Tara Chand, Dr. D. R. Bhattacharya, Prof. A. C. Banerji and Sri B. N. Jha; from the Chairmen, University Grants Committee, U.P.—Dr. H. N Kunzru and Dr. Sita Ram; and from the Secretary of the Committee, Sri Parmanand. I am also obliged for the help I received in the initial stages of the organisation of excavation work from Dr. R. P. Tripathi, Dr. Ishwari Prasad, Pt. K. Chaṭṭopādhyāya, Pt. Braj Mohan Vyas, Dr. Gorakh Prasad, Sri N. N. Ghosh, Dr. G. C Pande, Sri J. S. Negi and Sri D. H. Rao.

The present report sets out the results of the excavations of the defences at Kauśāmbī conducted during 1957-59. It has been divided into two parts,

part one being largely archaeological in nature, and part two devoted to a critical discussion of the original literary data pertaining to the Śyenaciti and the Puruṣa-medha. An attempt has been made here at a critical, comparative and detailed study of these institutions in their evolutional sequence with special reference to the different schools and their practices. This wading through the literary sources—the Saṁhitās, Brāhmaṇas, Sūtras etc.—was highly essential for the correct and accurate indentification of the sacrificial altar discovered in these excavations.

With the exception of painted N. B. P. Ware, pottery of Periods III and IV has not been included in the report. Nor is there any elaborate discussion on the terracotta figurines, as these have already been fully discussed in my earlier report being published in the form of a Memoir by the Union Department of Archaeology. I hope the Manager of Publications, Government of India, will expedite its publication which is long overdue.

By its very nature, an archaeological enterprise requires the discipline of organised team-work on a large scale. I am deeply obliged to my former pupils, and at present colleagues, Dr. B. N. S. Yadava, Dr. S. N. Roy, Sri R. C. Tripathi and Sri Lakshmi Narain Tiwari (now Asstt. Prof., Sanskrit University, Varanasi) for the invaluable help I have received in the preparation and publication of this work. I am much beholden to my friend and colleague, Sri A. D. Pant of the Politics Department, who went through the manuscript and offered valuable suggestions.

The publication of this report is, in a very large measure, due to the zeal and co-operation I have received from the members of the Archaeological Expedition—photographer Sri S. K. Shukla, surveyors and draftsmen, Sri Hasan Akhtar, Sri G. K. Kapoor, Sri H. N. Kar and pottery assistant Sri Braj Behari Misra. Sri Shukla also supervised the preparation and printing of the illustrations. My thanks are also due to Sri R. K. Varma and Sri Dhaneshwar Mandal who have read the proof and prepared the index.

I must also express my thankfulness to my colleagues in the department who shouldered the burden of teaching during my absence in connection with excavation work. To the inhabitants of Kauśāmbī also I extend my thanks for their ceaseless co-operation.

To Sri A. Ghosh, Director General of Archaeology, I am specially obliged

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for sending me a type-script of his lecture on the explorations in the Sarasvatī and Dṛṣadvatī Valley, delivered at the Indian History Congress, Jaipur; and for sending me the blocks of Pl. nos. 5, 13, 16 A, 18 A, 21 A, 26 B, 32 B, 33 A,33 B, and 36.

To Dr. H. D. Sankalia, Dr. S. B. Deo, Sri S. R. Rao and Sri P. P. Pandya, I am indebted for valuable informations concerning pottery from Navdatoli, Rangpur and other Western Indian sites; to Dr. B. B. Lal, for the report on plaster; to Dr. N. K. Bose, Director of the Department of Anthropology, Government of India, for deputing Sri B. C. Dutta, one of his assistants, who helped me in the excavation of the skeletal material from the Śyenaciti; and to Sri Bhola Nath, Zoologist, Zoological Survey, for the identification of some bones.

I am extremely thankful to the present Vice-Chancellor Dr. Sri Ranjan and Prof. S. C. Deb and Dr. B. P. Saksena, the Deans during this period, Sri K. L. Govil and Sri R. C. Sharma, the then Registrar and Accounts Officer respectively, for the co-operation and help they extended to me.

My thanks are also due to the officers of the Allahabad District, and specially to the then District Magistrate Sri O. N. Misra from whom I received fullest co-operation.

Last but not the least, I am grateful to Sri Sitaram Gunthey, Manager, Sri Zalim Singh and other workers of the Sammelan Mudranalaya for taking personal and unremitting interest in the printing of this work; and to the Saraswati Block Works, Allahabad, for the arduous task of preparing the blocks.

At the end, I must add that the publication of this report has been made possible on account of the grant received for the purpose from the U. G. C. and the Department of Cultural Affairs and Scientific Research, Government of U.P.

University of Allahabad
Āṣāḍha Śaka 1882
July 1960

G. R. S.

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# ABBREVIATIONS

*A B.* Aitareya Brāhmaṇa.
*A.I.N.* Lectures on Ancient Indian Numismatics (Bhandarkar).
*A.N.* Aṅguttara Nikāya.
*Āp.Śr.* Āpastamba Śrauta Sūtra.
*Āp.Śulba.* Āpastamba Śulba Sūtra.
*Āśv.Śr.* Āśvalāyana Śrauta Sūtra.
*A.V.* Atharva-veda.
*Baud.Śr.* Baudhāyana Śrauta Sūtra.
*Baudhāyana Śulba.* Baudhāyana Śulba Sūtra.
*Bhāg.P.* Bhāgavata Purāṇa.
*C.A.I.* Coins of Ancient India (Cunningham).
*C.C.A.I.* Catalogue of Indian Coins in the British Museum, Coins of Ancient India (Allan).
*C.H.I.* Cambridge History of India.
*E.R.E.* Encyclopaedia of Religion and Ethics.
*Fig.* Figure.
*Fl.* Floor.
*Gop.B.* Gopatha Brāhmaṇa.
*H.O.S.* Harvard Oriental Series.
*K.S.* Kāṭhaka Saṁhitā.
*K.S.B.* Brāhmaṇa portion of the Kāṭhaka Saṁhitā.
*KSB* Kauśāmbī.
*Kap.S.* Kapiṣṭhala-Kaṭha-Saṁhitā.
*Kāt.Śr.* Kātyāyana Śrauta Sūtra.
*Kau.Up.* Kauṣītaki Upaniṣad.
*Kh.N.* Khuddaka Nikāya.
*Lāṭ.Śr.* Laṭyāyana Śrauta Sūtra.
*L.S.I.* Linguistic Survey of India.
*M.B.* Mahābhārata.
*Manu.* Manusmṛti.
*M.S.* Maitrāyaṇī Saṁhitā.
*M.S.B.* Brāhmaṇa portion of the Maitrāyaṇī Saṁhitā.
*Maitrāyaṇīya Śulba.* Maitrāyaṇīya Śulba Sūtra.

*Mānava Śulba.* Mānava Śūlba Sūtra.
*Mem. Arch. Surv. Ind.* Memoirs of the Archaeological Survey of India.
*N.B.P.* Northern Black Polished (Ware).
*NVS* Nevasa.
*NVT* Navdatoli.
*P.G.Ware* Painted Grey Ware.
*Pl.* Plate.
*P.T.S.* Pāli Text Society.
*RGP* Rangpur.
*R.V.* Ṛgveda.
*Ś.B.* Śatapatha Brāhmaṇa.
*S.B.E.* Sacred Books of the East.
*Ṣaḍ.B.* Ṣaḍviṁśa Brāhmaṇa.
*S.O.B.* Studies in the Origins of Buddhism (Pande).
*Śāṅk.Śr.* Śāṅkhāyana Śrauta Sūtra.
*Śat.Śr.* Satyāṣāḍha Śrauta Sūtra.
*Select Ins.* Select Inscriptions (Sircar).
*Sn.* Suttanipāta.
*S.N.* Saṁyutta Nikāya.
*SP.* Structural Period.
*T.B.* Taittirīya Brāhmaṇa.
*T.S.* Taittirīya Saṁhitā.
*T.S.B.* Brāhmaṇa portion of the Taittirīya Saṁhitā.
*Vaik.Śr.* Vaikhānasa Śrauta Sūtra.
*Vait.Śr.* Vaitāna Śrauta Sūtra.
*Varāha Śulba.* Varāha Śulba Sūtra.
*V.S.* Vājasaneya Saṁhitā.
*Vāyu P.* Vāyu Purāṇa.
*Y.V.* Yajurveda.

## JOURNALS

*Ann. Bibl. Ind. Arch.* Annual Bibliography of Indian Archaeology, Kern Institute.
*A.I.* Ancient India.
*I.A.* Indian Archaeology—A Review.
*J.A.S.B.* Journal of the Asiatic Society of Bengal.
*J.B.O.R.S.* Journal of the Bihar and Orissa Research Society.
*J.I.S.O.A.* Journal of the Indian Society of Oriental Art.
*J.N.S.I.* Journal of the Numismatic Society of India.
*Z.D.M.G.* Zeitschrift der Deutschen Morgenländischen Gesellschaft.

# THE EXCAVATIONS AT KAUŚĀMBĪ

(1957-59)

Last December I visited the Kausambhi museum of the University. I was pleased and a little surprised to see a noteworthy collection. Today I visited the Kausambhi site about which I had heard a great deal for many years but which I had never visited previously.

It was evident even from a rapid view that this is a site of great importance from the historical and archaeological points of view. Also that the work being done here is methodical and expert. I am glad that the Allahabad University is in charge of it and I congratulate it.

Jawaharlal Nehru
Dated 7/5/1959

State Museum,
LUCKNOW.

The Prime Minister Sri Jawaharlal Nehru at the site : Sri Lal Bahadur Shastri on the left

The Governer of Uttar Pradesh, Sri V. V. Giri at the site

# PART ONE

The Governer of Uttar Pradesh, Sri V. V. Giri at the site

# PART ONE

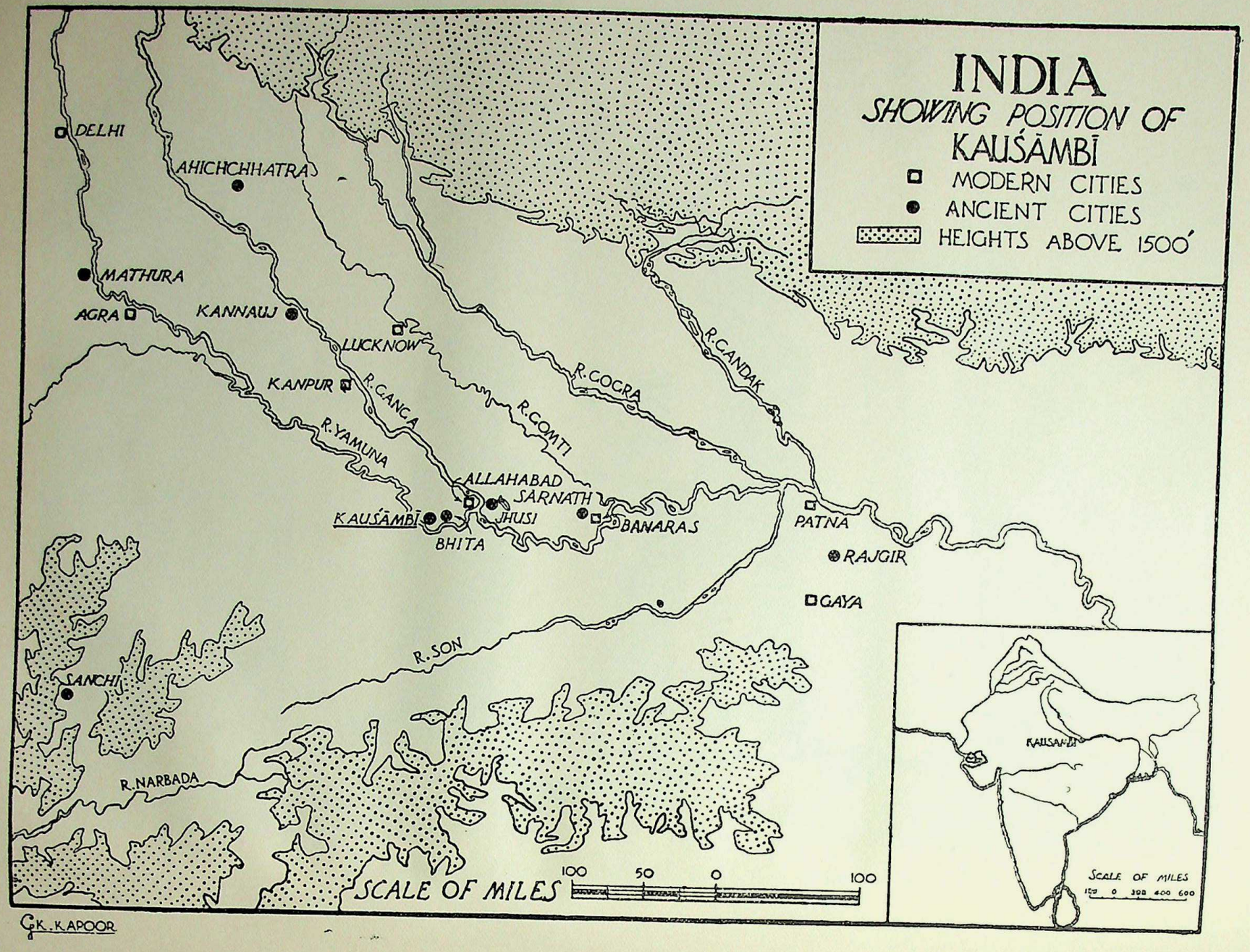


FIG. 1

G.K. KAPOOR

# CHAPTER ONE

# INTRODUCTION

*Review of the Recent Discoveries in India of the Indus Civilisation*

The urban revolution in the Indus Valley, resting upon the same fundamental ideas of organised town-life as in Egypt and Babylonia, gave birth to a civilisation the essentially Indian character of which has universally been recognised. In the field of religion, the indebtedness of Hinduism to this civilisation is obvious, as, many of the basic ideas and beliefs that constitute the very core of later Hinduism are foreign to the Vedic tradition and have their prototypes in the religion of the Indus cities.[1]

Indian archaeology, in the last decade, has unfolded a new chapter in the history of the Harappan culture the cities and towns of which have been discovered as far north as Rūpar, at the foot of the Simla hills, as far east as Ālamgīrpura, on the Hiṇḍon—a tributary of the Yamunā, in the extensive valleys of the Sarasvatī in Rajasthan and in the south-west over the entire coastal plain round the gulf of Cambay and Kāṭhiāwār. The Harappan occupations at Rūpar, Lothal, Rangpur and other sites in India came into existence at a late stage of this culture and continued long after the destruction of the main towns in the original centres in the Western Punjab (Pakistan).[2] A terminal date[3] round about 1500 B. C. for the Harappan cities in the Western Punjab can hardly hold good for the recently discovered Harappan settlements in the Eastern Punjab, Rajasthan, Uttar Pradesh and Western India.

Some of the recently excavated sites have also supplied evidence of a phase of Harappan culture unrepresented at Harappā and Mohenjo-daro. The

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1. Marshall, Mohenjo-daro, I. 48-78; Childe, New Light on the Most Ancient East, pp. 183-185.
2. Wheeler, Early India and Pakistan, p. 117.
3. Piggot, Prehistoric India, pp. 140, 258.

culture which had become stagnant in its original centres underwent a rejuvenation and gradual transformation in these areas, possibly under the impact of new historical forces. At Rūpar[1] the earliest occupation represented a late stage of the mature Harappan culture, whereas the later phase 'offered certain new traditions in ceramic.' The Indus goblet, rare in the lower levels, was almost absent in the later phase, in which terracotta cakes also became scarce. But more significant is the introduction of certain incised designs on pottery in the second phase. The earliest period at Bārā, five miles south of Rūpar, is characterised by a complete scarcity of the Indus goblet and terracotta cakes and a corresponding diversity in slips and paintings unknown to the lower levels at Rūpar, as also by the presence of new pottery-shapes having horizontal or wavy incised lines. The fifteen feet thick deposit at Bārā implies continuous occupation for centuries after the typical Harappan culture. The new ceramic tradition is not an isolated development at Bārā. Though unrecorded at Harappā and Mohenjo-daro, it is abundantly represented at the Harappan sites in Bikaner,[2] which may represent the eastern variety of the Harappan culture and may have flourished at a period later than true Harappā. As Ghosh[3] remarks, the Sarasvatī Valley had been really a commingling of many rivers, not only geographically, but also culturally. It is symptomatic of the direction in which the Harappan culture was being modified.

In Kāṭhiāwār and Western India, archaeology has revealed a still more coherent and significant story of the devolution of the Harappan culture. Beginning with an initial occupation with characteristic ingredients of the Harappan culture, many of the sites in this region show influences unknown to the ceramic traditions of Harappā and Mohenjo-daro—in pottery types, colours and in painting designs. Black-and-Red Ware occurs along with the typical Harappan pottery at Lothal[4], Rangpur[5], Rojdi[6] etc. Painting designs, similar to those from post-Harappan sites in Sind and the adjoining regions, have been noticed on the pottery of the Chalcolithic culture from Western India[7]. It is now becoming abundantly clear that the Harappan culture in these new regions

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1. I. A., 1954-55, p. 11.
2. I. A., 1954-55, p. 11.
3. Lecture delivered at the Indian History Congress, Jaipur, 1951.
4. I. A., 1956-57, p. 15.
5. I. A., 1954-55, p. 12.
6. I. A., 1957-58, p. 18; ibid, 1958-59, p. 19.
7. Sankalia, Subba Rao and Deo—Excavations at Maheshwar and Navdatoli, pp. 241, 247.

State Museum,
LUCKNOW.



did not meet with a catastrophic end but was gradually assimilated by and transformed into new cultures. In Western India Harappan influences in pottery types and designs persisted in a transitional stage when other more important components of the Indus Civilisation had disappeared.

### *Painted Grey Ware and its Relation with the Indus Civilisation*

Sites of the Painted Grey Ware have been discovered in the valley of the Sarasvatī, in the plains of the Punjab and at Ālamgīrpura—either in close proximity of deserted settlements of the Harappan culture or directly over them. The P. G. Ware people came to the Ghaggar Valley[1] after its desertion by the Harappans. It was also significant, as Ghosh observed, that the P. G. Ware people always built their settlements by the side of Harappan mounds and not directly over them, thus 'breaking new grounds for themselves.' The excavations of Tarkhānawāla Ḍerā and Chak 86 revealed that the Harappan and Grey Ware cultures never came into contact with each other in this particular area. 'The settlements of each originated, flourished and died out in their own time, entirely independently of those of the other.'[2] A clay deposit separated the Harappan levels from the subsequent Grey Ware occupations.

At Rūpar and Ālamgīrpura, though the P. G. Ware settlements rest directly over the earlier Harappan settlements, there is a complete cultural hiatus between the two. The P. G. Ware people, who scrupulously avoided the deserted mounds of the Harappans in the Ghaggar Valley, were now building their houses on the old ruins of these mounds in the Northern Punjab and Western U. P.; but still they were complete strangers to urban life, to houses of baked bricks, roads and underground drains, so characteristic of the Harappan culture. This situation warrants the inference that the Harappan tradition had died out of these regions and the Harappans had been forced to move out before the advent of the P. G. Ware people. The cause that compelled them to evacuate these regions was other than the advance of the P. G. Ware people.

Archaeology, thus, unfolds two different pictures of the immediate sequel to the Indus Civilisation. In Western India it is a transformation and transmutation of the Harappan culture into successive cultures. In Western U. P., the Punjab and in

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1. Ghosh, A., Bulletin of the National Inst. Sciences of India—No. 1 (1952), pp. 37-42.
2. Ghosh, A., Lecture delivered at the Indian History Congress, Jaipur, 1951.

the Ghaggar Valley, there is no overlapping of the Harappan culture by the P. G. Ware, stratigraphically, the successor culture; even though in these regions there is evidence of the existence of the Harappan long after its disappearance in the main homeland and also of its transformation by the introduction of new pottery types and incised designs.

### *Evidence From Kauśāmbī*

The early defences at Kauśāmbī closely recall the Harappan citadel.[1] The mud-packed rampart revetted externally with baked bricks in the so-called English bond in alternate courses of headers and stretchers, battered back to angles of 20° to 40°, bastions at intervals, rectangular towers and underground passage built on corbelled arch, are significant features of architecture at Kauśāmbī with prototypes for each one of them in Harappan architecture. The very idea of town life was so far unknown in the Gangetic Valley. The defences show that in the first centuries of the first millennium B. C. Kauśāmbī developed as a town fully equipped for its protection by the magnificent defences built on the Harappan pattern. Evidently, this was not an achievement of the P. G. Ware culture which shows a distinct aversion to the very concept of urban life in its earlier settlements in the Ghaggar Valley, the Punjab and Western U. P. Nor can it be associated with the Red Ochre-washed Ware. It is equally significant that P. G. Ware occurs at Kauśāmbī two structural periods after the original construction of the defences. The recent discovery at Ālamgīrpura[2] (District Meerut, U. P.) has established definite evidence of the penetration of the Harappan culture in the Gaṅgā-Yamunā Doab. If the Harappans could reach the banks of the Hiṇḍon, a tributary of the Yamunā, the percolation and the survival of the Harappan influences at Kauśāmbī, only 300 miles down the Yamunā, is more than likely.

### *Evidence of Pottery and Contacts of Kauśāmbī with Navdatoli and Western Indian Sites*

The pottery associated with the earliest defences, offers numerous links with Navdatoli and Rangpur and other sites in Kāṭhiā-vār. At Kauśāmbī, the occurrence of about 30 types analogous to those of Navdatoli, about 10 to those of Rangpur and a similar number to those of Somanātha, Mehgaon and

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1. Cf. Wheeler, op. cit., p. 129.
2. I. A., 1958-59, pp. 51 ff.

other Western Indian sites, is an impressive record of cultural contacts. In Navdatoli the pottery is chalcolithic and has been discovered together with certain types of painted pottery clearly pointing to an Iranian connection.[1] Pottery types at Rangpur and other Western Indian sites, similar to those at Kauśāmbī, occur in late Harppan or immediately post-Harappan context and their Harappan origin in these sites is undoubted.

The following conclusions can, therefore, be arrived at in the light of the foregoing discussion :—

(1) Kauśāmbī had a close link with Navdatoli for which radio carbon dating furnishes a date roughly from 1500 to 1100 B. C. In this period this site shows close contact with Iran, pointing to an Iranian penetration into Central India.

(2) Apart from the defences, which were built on the Harappan model, many types of pottery from Kauśāmbī are analogous to pottery types of Harappan origin in Western India.

(3) The P. G. Ware at Kauśāmbī signifying a late stage in the chronological sequence of this ware, as known from sites in Western U. P., the Punjab and Rajasthan, marks here a second cultural stage. The defences had been built two structural periods earlier than the appearance of the P. G. Ware.

*Evidence of Philology*

On the basis of philology Hoernle[2] came to the conclusion that there were two Indo-Aryan invasions of India, one preceding the other, by tribes speaking different but closely connected languages. He was of the view that at a very remote period of history North India was divided between two forms of speech designated by him as the Śaurasenī and the Māgadhī tongues respectively. Later on, these two branched off into four principal groups, northern, western, southern and eastern, each constituting a single language originally. The two principal tongues 'divided the country diagonally between them, the one occu-

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1. I. A., p. 31; Sankalia, Subba Rao and Deo, op. cit., p. 249.
2. Hoernle, Comparative Grammar of the Gaudian Languages, pp. XVII-XXXIV.

pying the north-western, the other the south-eastern half.' The Māgadhī tongue was older of the two and its occupation of North India preceded the development and extension of Śaurasenī. Isolated characteristics of Māgadhī were also present in the west, the region of Śaurasenī, pointing to its existence in the remote past upto the extreme western frontiers. Hoernle also expressed the view that 'Māgadhī, Pashtu and Kāfirī were once in close connection, perhaps one language.' On the other hand, the headquarters of Śaurasenī were in Western Rajputana from where it spread north-east and east pushing Māgadhī to recede more and more towards south and east, leaving, however, here and there in the deserted territories, traces of its former presence. Māgadhī was separated from Pashtu and Kāfirī by Śaurasenī driving a wedge and cleaving them asunder and gradually pushing Māgadhī further and further towards east. All these considerations, according to Hoernle, point to the fact that 'two great emigrations of the people of the Aryan stock into India took place at different periods, both speaking essentially the same language, though in two different varieties'.

Grierson[1] who did not accept this theory in its entirety put forth the view that the Indo-Aryan 'immigration was a gradual process extending over a very long period of time and a clear distinction can be made between the languages of the earliest and of the latest immigrants.' According to him, the latter were opposed by the former in course of their onward march into the Punjab and were, thus, forced to 'go round their predecessors down the Indus Valley and thence in later times, across India to their south and ultimately behind them on the east.'

The net result of these movements, according to both these views, was the formation of two clear linguistic zones—an inner and more compact one extending from the Eastern Punjab to the confluence of the Gaṅgā and Yamunā and the other, surrounding it, from Western and Central India to the central and lower Gangetic Valley. This conclusion is based on the comparative analysis of phonetics, declension of nouns, conjugation of verbs and the general character of the early languages of these areas. The central Gangetic area round about Allahabad with its Ardha-Māgadhī represented a neutral ground between Śaurasenī, the language of the inner, and Māgadhī, the language of the outer zone. Closely connected with Ardha-Māgadhī was Mahārāṣṭrī, the language of Mahārāṣṭra.

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1. Grierson, L. S. I., Vol. I., Pt. I., pp. 116 ff; for a contrary opinion, see S. K. Chatterji, The Origin and Development of the Bengali Language, pp. 150 ff.

This is further confirmed by the fact that Madhyadeśa or the Midland, extending, according to Manu[1] from Vinaśana, where the river Sarasvatī loses itself in the Great Desert, to Allahabad, together with some five degrees of the country farther east, became the centre of Brāhmaṇa orthodoxy and the complex sacrificial cult[2]. As against this, the growing intermixture and synthesis of the Aryan and pre-Aryan streams of culture, manifested[3] themselves very distinctly in the region of North-Eastern India, in the later Vedic period, and gave rise, later on, to momentous movements in religion and philosophy. The Aryans of this region, the easten outland[4] according to some philologists, appear to have belonged to that branch which had been more in contact with and amenable to non-Aryan influences. 'In the Ganges basin as the frontier receded eastwards, the Harappā ideals permeated the religious thought of the Brāhmaṇas'.[5] The pre-Vedic and non-Aryan ascetic tendency[6] is clearly marked in the later Vedic period in some of the Upaniṣads and the Bṛhadāraṇyaka Upaniṣad, one of the most important of them, reveals that Videha became the centre of a powerful intellectual ferment in the age of Janaka. By the 6th century. B.C. this ascetic tendency had burst into full flower manifesting itself in the great ascetic religious movements—Jainism and Buddhism.[7] The Ājīvaka sect and the non-Vedic and atheistic Sāṅkhya[8] system also appear to have taken their rise in this cultural milieu

*Correspondence between Archaeological and Linguistic Data*

The movement of the Aryans in waves, suggested by the linguistic evidence, accords well with the archaeological data brought to light in the recent excavations, which tend to indicate at least two major waves of immigrants, both of which can tentatively be equated with the Aryans. The P. G. Ware with its distribution in the Sarasvatī Valley, the Eastern Punjab and Western U. P., the traditional home of the Aryans, par excellence, has been associated with the Aryans.[9]

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1. Manu, 11. 12. Cf. C. H. I., p. 40.
2. Grierson, E. R. E., vol. 2, p. 540.
3. Pande, G. C., Studies in the Origins of Buddhism, Chap. VIII.
4. E. R. E., vol. 2, p. 540.
5. Piggott, Prehistoric India, p. 286.
6. Pande, G. C., loc. cit; Geden, A. S., E. R. E., vol. 2, p. 88.
7. Pande, G. C., op. cit., Chap. IX.
8. Cf. E. R. E., vol. 2, p. 540.
9. Lal, B. B., A. I., No. 9, 1953, p. 97; also A. I. Nos. 10-11, p. 147..

The evidence for the presence of Iranian element at Navdatoli in the second half of the 2nd millennium B. C. points to an Iranian penetration into Central India obviously signifying another wave of the Indo-Aryans. The close affinity in the pottery types between this latter site and Kauśāmbī, towards the close of the 2nd millennium B. C., attests the fact that both belong to the same community of culture. This group, as the evidence of Kauśāmbī shows, came in close contact with the Harappan culture and borrowed from it elements of urban civilisation including a specialised form of defence architecture. Thus, it may not be unreasonable to state that this was the group of the first Aryan immigrants who sacked the Harappan cities and conquered them but, as has happened so many times in history, the victors succumbed to the cultural influence of the vanquished. By the time the later wave of their kinsmen, the bearers of the P. G. Ware, entered the Punjab and the Sarasvatī Valley, the Harappan cities had already been destroyed and deserted, and, as such, they had no direct contact with the great Harappan civilisation, which explains the cultural hiatus between them. The dead mounds were scrupulously avoided in their first settlement in the valley of the Sarasvatī; longer association, however, made them settle on the old mounds in the Punjab and in Western U. P. without inducing them to utilise, for making more durable and comfortable houses, the tons of bricks which were easily available at Rūpar. By the time these people reached the central Gangetic Valley, they must have been accustomed to regard the citadels even on the Harappan pattern as those of their kinsmen. The above deductions based on the evidence of recent archaeology and in the light of linguistic theories, in the present state of our knowledge, must remain a hypothesis, tentative in character, to be tested by future archaeological work in these regions.

### *Aryan Expansion in the Central Gangetic Valley, in the Deccan and in the South*

*Evidence of the Kṛṣṇa Yajurveda School*—The Taittirīya Saṁhitā, Brāhmaṇa and Āraṇyaka were composed in Brahmāvarta, the land occupied by the Kuru-Pañcāla people, lying between the rivers Sarasvatī and Dṛṣadvatī and the western districts of U. P.[1] In the period of the epics the Taittirīyas were to be found in the central Gangetic Valley round Ayodhyā.[2] The Śrauta

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1. Keith, T. S., H. O. S., vol. 18, p. xciii; Winternitz, A History of Indian Literature, vol. I p. 196.
2. Keith, loc. cit.

Sūtra of Baudhāyana, and also of Āpastamba originated in the South.[1] Baudhāyana cannot be later than 6th or 5th century B. C. and Āpastamba has been assigned to the 4th century B. C.[2] Winternitz has rightly concluded that the Aryans were well established in the South in the 7th century B. C.[3]

The discovery of the *Śyenaciti* of the *Puruṣamedha* during these excavations and its attribution[4] to the Kṛṣṇa Yajurveda School, confirms the evidence of the Rāmāyaṇa about the presence of the Taittirīyas in the central Gangetic Valley in the early historical period and affords an archaeological link in the expansion of the Kṛṣṇa Yajurveda School from Brahmāvarta to Southern India. The close cultural contact of the central Gangetic Valley with the Deccan and the South in this period is further demonstrated by the occurrence of typical forms of what have been called southern Brāhmī letters in the early seals from Kauśāmbī, by the presence of brick-built soakage tanks, more widely distributed in the Deccan, and also by a number of pottery types common to Kauśāmbī and the Deccan. The cumulative archaeological evidence, thus, clearly demonstrates Kauśāmbī's intimate connections with the Deccan and the Malwa region in the closing centuries of the 2nd millennium B. C. and the cultural contacts continuing in the early historical period.

### *New Light on the Aryan Immigration into India*

Pārśva, Mahāvīra and Buddha presuppose the entire Vedic literature comprising the Saṁhitās, Brāhmaṇas and Upaniṣads divided into numerous schools.[5] This entire development cannot be telescoped into six to seven hundred years, if the middle of the second millennium B. C. is assumed to be the date of the first Aryan entry in North Western India. It has also been demonstrated that the deities, Mitra, Varuṇa, Indra and Nāsatyau figuring in the Boghaz-köi inscription in Asia Minor of the 14th century B. C. are Indian Vedic deities.[6] This implies that the Aryans had settled in North Western India considerably before the 14th century B.C. so that these deities were no longer worshipped under Aryan names but

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1. Winternitz, op. cit., p. 299.
2. Keith, op. cit., p. xlvi.
3. Winternitz, loc. cit.
4. Infra, Chapter Eight.
5. Winternitz, op. cit., p. 310.
6. Winternitz, op. cit. p. 305; Chaṭṭopādhyāya, K., Proceedings, Ninth All India Oriental Conference, Trivandrum, pp. 125-66.

under Indian Vedic names. The presence of a branch of the Aryans in the central Gangetic Valley and at Navdatoli in the latter half of the second millennium B. C. lends further support to the view that the Aryans must have entered the Punjab and even the valley of the Sarasvatī and Dṛṣadvatī and Brahmāvarta at a much earlier date.

*Literary Evidence of the Growth of Cities in the Gangetic Valley*

Vedic literature offers convincing evidence of the existence of a number of towns in the Gangetic Valley. Towns like Āsandīvant,[1] the royal city of Janamejaya Pārīkṣita, Kāmpīla,[2] Ayodhyā[3] and Kauśāmbī[4] are prominently mentioned. Pāṇini[5] and the Jātakas[6] present a picture of the central Gangetic Valley dominated by numerous towns and cities, many of which were evidently fortified. The word *pura*, denoting rampart, fort or stronghold, is of frequent occurrence in Vedic literature. Deities like Indra and Agni are invoked to destroy enemy's forts[7], many of which were wide and broad[8] and had ramparts of mud or unbaked bricks[9], probably also with stone facing. The word *dehī*, referring to defences or ramparts of hardened earth with palisades and a ditch, occurs in the R. V.[10] A passage in the Śatapatha Brāhmaṇa,[11] shows that moat or ditch was also known in the period of this Brāhmaṇa. Pāṇini[12] refers to towns, town planning, fort, rampart, moat, gates and watch-towers. Kauṭilya[13] has given elaborate account of types of forts, the site for fortification, of rampart, towers, staircases, moat etc. He refers to *prākāra* over *vapra*. According to Pāṇini, *prākāra* was made of bricks[14] and in

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1. Vedic Index, vol. I, p. 72.
2. T. S. VII. 4. 19; M. S. III. 12. 20.
3. A. B. VII. 3. 1.
4. Ś. B. XII. 2. 2. 13; Gop. B. I. 2. 24; A. B. VIII. 14.
5. Agrawal, V. S., India as Known to Pāṇini, p. 72.
6. Rhys Davids, Buddhist India, pp. 34 ff.
7. R. V. I. 53.7; I. 131. 4; III. 15. 4; A. B. IV. 6. 23; Ś. B. III. 4. 4. 3, V. 3. 3. 24.
8. R. V. I. 89. 2.
9. R. V. II. 35. 6.
10. R.V. VI. 47.2, VII. 6.5; Vedic Index vol. I, pp. 379, 539; Schrader, Prehistoric Antiquities of the Aryan Peoples, p. 344.
11. Ś. B. VII. 1. 1. 13.
12. Agrawal, V. S., op. cit., p. 137.
13. Samasastry, Arthaśāstra of Kauṭilya, II. 3. 51.
14. Pāṇini, V. 1. 16.

the light of Pāṇini's rule *prākāra* in Kauṭilya may denote revetment of baked bricks against rampart or *vapra*. The description of Pāṇini and Kauṭilya accords well with the defences at Kauśāmbī in *SP*. III. 13 and III. 14 with the rampart, revetment of bricks, guard-rooms and towers, flanking a passage through them.

The literary evidence, thus, shows clearly that in the period of the Brāhmaṇas, the Jātakas, Pāṇini and Kauṭilya (c. 1000 to 3rd century B.C.) urban life was fully developed in the Gangetic Valley and cities with elaborate arrangements for defence had come into existence. These excavations substantiate the literary evidence described above.

*Character of the Early Culture of Kauśāmbī*

The earliest culture of Kauśāmbī was evidently derived from more than one source. Its possible indebtedness to the Harappan culture and to a wave of Aryan immigrants has already been noticed. Along with the sturdy red ware, noted above, the black-and-red also occurs practically throughout the period, which from the nature of the material, obviously represents a stream of cultural tradition different from the one represented by the former. The first culture at Kauśāmbī, therefore, is of multiple origin and the early settlers, evidently in the course of their journey to the central Gangetic Valley, came across and absorbed elements of more than one culture.

*The Early Town—An Iron Age Town* : The earliest inhabitants of the city were on the verge of discovering iron. It is significant that iron occurs in *SP*. I. 3 along with the earliest defences, and thus antedates the N. B. P. Ware and also the P. G. Ware in the central Gangetic Valley. In Ālamgīrpura also, iron occurs throughout in the P. G. Ware levels[1] which, therefore, can no longer be regarded as essentially a Bronze Age Ware[2]; nor is it likely that Achaemenid Persia transmitted to India the knowledge and use of either iron or of coinage in c. 500 B. C.[3]

The excavations have also revealed that the uninscribed copper cast coins are earlier than the silver punch-marked coins at this site and their first occurrence synchronises with the spread of the P. G. Ware in this region.

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1. I. A., 1958-59, ibid.
2. Wheeler, Early India and Pakistan, p. 26.
3. Wheeler, op. cit., p. 24.

To sum up, the urban revolution in the Gangetic Valley was achieved by a people who lived in close proximity of the Harappans, from whom they borrowed not only the conception of a town and a citadel but also the various elements of architecture. Another facet of their culture is represented by a number of pottery types similar to those from Navdatoli which has yielded convincing evidence of Iranian contact in the second half of the 2nd millennium B. C., thus, linking them with the Indo-Aryans. Very soon in their life and considerably before the introduction of the N. B. P. Ware, they were equipped with the knowledge of iron and coinage. Thus, the urban revolution in the central Gangetic Valley, with its roots in the Indus Civilisation, was probably an achievement of a branch of the Indo-Aryans and marked the beginning of the Iron Age in these regions antedating the N. B. P. and the P. G. Wares. It also developed elements of culture like coinage, unknown to the former civilisation, which furnished the basis of economic life in the historical period.

*Material Evidence of Foreign Invasions in the Gangetic Valley*

*The Bactrian Greeks*—Three types of arrow-heads, viz. types (I), (J) and (K), represented by 16, 11 and 10 pieces respectively, are of great value as they provide, for the first time, material evidence of foreign invasions in three successive periods.[1] It has been pointed out elsewhere that *SP.* III. 14 ended in extensive conflagration and destruction connoting invasion. Eight sub-types of type (I) (double-tanged) and one of type (J) (three-bladed) arrow-heads have been discovered from the destructions of structures of *SP.* III. 14. These arrow-heads are intrusive to the Gangetic Valley and have also been reported from Taxila, the only site in the Indian sub-continent, where they were associated with the Bactrian Greeks. According to the stratigraphical evidence, the N. B. P. Ware survived after this invasion in two structural periods. These arrow-heads also pre-date all the coins of the Mitra Kings, namely, Bṛhaspatimitra, Ghoṣa, Sudeva etc., and are also earlier than the three sealings with characteristic Śuṅga paleography for which a date between c. 150 to 50 B. C. has been suggested. From the combined evidence of pottery, seals and coins, the appearance of the eight varieties of the double-tanged and one of three-bladed arrow-heads and consequently the period of the Greek invasion can be placed within the first quarter of the 2nd century B. C. (200-175 B. C.). Taking into consideration all the facts, the suggested date for *SP.* III. 14 is c. 255 to c. 185 B. C. and thus c. 185 B. C. may be taken as the date

1. *Infra.* p. 32.

for the end of this period and beginning of *SP.* III. 15. The Yavana invasion[1] of the Gangetic Valley has been referred to by Patañjali who credits the Greeks with the conquest of Sāketa and Mādhyamikā. According to the Yuga Purāṇa of the Gārgī Saṁhitā, the Yavanas invaded immediately after the reign of the Mauryan King Śāliśūka and captured Sāketa and Pāṭaliputra. The Mālavikāgnimitra of Kālidāsa also refers to a war between the forces of Puṣyamitra Śuṅga and the Yavanas on the banks of the Sindhu. The identity of the leader of the Yavana invasion has given rise to an acute controversy and opinion has been sharply divided between Demetrius and Menander. The stratigraphic evidence suggests Demetrius as the Yavana king who invaded Kauśāmbī in the early decades of the 2nd century B. C., a date too early for Menander.

It is also significant that the performance of the *Puruṣamedha* sacrifice on the *Śyenaciti* (hawk-shaped altar) is coeval with the third Revetment which is of the nature of a repair of Revetment 2 destroyed at the end of SP. III. 14. According to this evidence, the Greek invasion was followed immediately by the repair of the rampart and the performance of the sacrifice which symbolised assertion of sovereignty and ascendancy over all inimical forces. The circumstantial evidence points to Puṣyamitra as its performer and the victorious defender of the Gangetic Valley against the invasion of the Bactrian Greeks.

*The Śaka-Kuṣāṇa*—One specimen of type (J) (three-bladed) arrowhead occurs in SP. III. 14 along with the double-tanged, and the rest belong to SP. III. 17 and III. 18 (c. 45 B. C. to 95 A. D.). The second time they appear evidently with the Śaka-Kuṣāṇas, whose presence at Kauśāmbī is fully documented by the discovery in earlier excavations of a large number of Śaka-Parthian terracotta figurines with specialized types like the shrine of the Mother Goddess, a female deity with double-knobbed head-dress or with peaked caps, dancers, musicians etc.[2] Śaka names are of frequent occurrence in the inscriptions of this period from the Ghoṣitārāma monastery and a seal of Kaniṣka and a large number of Kuṣāṇa coins were also discovered in the earlier excavations.

*The Hūṇas*—The evidence of the Hūṇa conquest of Kauśāmbī was furnished by two seals, discovered in the excavations of the monastery of Ghoṣitā-

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1. Jaiswal K. P., JBORS. XIV (1928), pp. 397-421; Tarn, The Greeks in Bactria and India, pp. 129 ff. and also appendix 4, pp. 452 ff; Raychaudhuri, P. H. A. I., p. 384.; Sircar, D. C., in The Age of Imperial Unity, pp. 106 ff.; Narain, A.K., The Indo-Greeks pp. 82 ff.
2. Sharma, G. R., Kauśāmbī Excs. Ann. Bibl. Ind. Arch., 1958, Vol. XVI, p. XL.

rāma[1], one counterstruck by letters *To Ra Ma Ṇa*, and the other with the legend *Huṇa-Rāja* evidently referring to the same king. The arrow-heads of type (K) provide another evidence of Hūṇa conquest under king Toramāṇa, sometime between c. 510 to c. 515 A. D. These three types of arrow-heads (I), (J) and (K) are valuable additions to our knowledge of the invasions of the Greeks, the Śaka-Kuṣāṇas and the Hūṇas in this region. It is also clear from the excavations that Kauśāmbī could never fully recover from the Hūṇa devastations.

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1. I. A., 1954-55, p. 18

State Muse
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# ES

DATES

RROW HEADS

DEFENCES

500

300

100

A.D.
—0—
B.C.

100

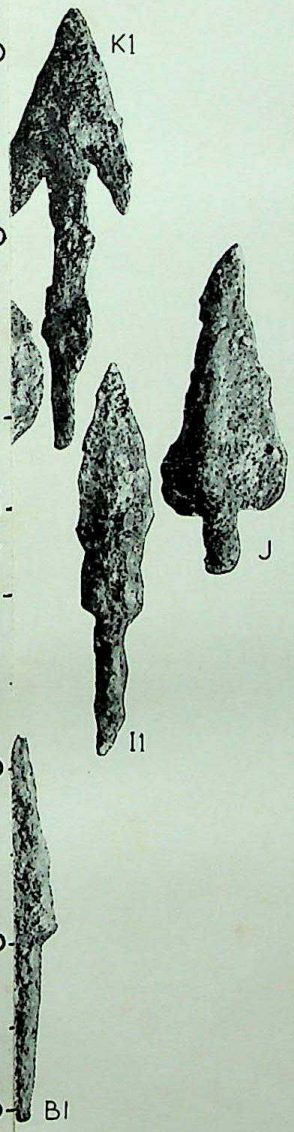
300

500

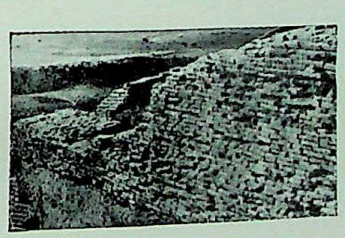
700

900

1100

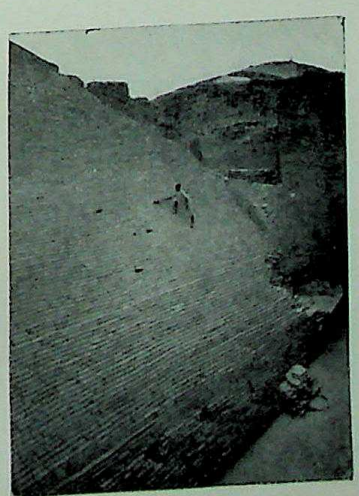


GUARD - ROOMS



FLANK-WALL

CORBELLED - ARCH



REVETMENT 1

# KAUŚĀMBĪ 1957 - 59: SEQUENCE OF CULTURES

DATES
STRUCTURAL PERIODS
RAMPARTS
STRUCTURES
ROADS MOATS & S.R.
FLOORS
LAYERS
CULTURAL PERIODS
BRICKS
COINS

500
300
100
A.D.
O
B.C.
100
300
500
700
900
1100

SP.25
SP.24
SP.23
SP.22
SP.21
SP.20
SP.19
SP.18
SP.17
SP.16
SP.15
SP.14
SP.13
SP.12
SP.11
SP.10
SP.9
SP.8
SP.7
SP.6
SP.5
SP.4
SP.3
SP.2
SP.1

5
4
3
3
2
2
1

REVETMENTS
FLANKS & GUARD-ROOMS
WALL 6

ROAD 4
MOAT 4
ROAD 3
MOAT 3
S.R. 2
ROAD 2
MOAT 2
ROAD 1
MOAT 1
S.R. 1

FL.14
FL.13
FL.12
FL.11
FL.10
FL.9
FL.8
FL.7
FL.6
FL.5
FL.4
FL.3
FL.2
FL.1

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27

PERIOD IV – POST N.B.P. WARE
PD III – NORTHERN BLACK POLISHED WARE
PD II – P.G. WARE
BLACK-AND-RED WARE
PD I – PRE-P.G WARE

14.5"X 7"X 2.5" 6% 77%
16.5"X 11" X 2.5" 70% 25% 55% 32%
17.5"X 12"X 2.75" 60% 34% 66% 20% 70%
40% 16%
18"X 12"X 2.5" 66% 20%
40% 40%
19.5"X 13"X 2.75"
10% 60%
60% 22%
20.25"X 13.25"X 3.25"

COINS

SQUARE UNINSCRIBED CAST
PUNCH MARKED CIRCULAR CAST
IA
IIB
IIA
TINY CAST
LANKY BULL TYPE
MAGHAS
IVB
IVA
IIC

IVB
IVA
IIC
IA
IIB
IIA

TERRACOTTA FIGURINES

LATE HAND-MADE
MOULD-MADE
EARLY HAND-MADE

ARROW HEADS

G
K1
J
E2
I1
B1

DEFENCES

GUARD-ROOMS
FLANK-WALL
CORBELLED-ARCH
REVETMENT I

REFERENCES:-

FL - FLOOR
S.R - SUBSIDIARY RAMPART
- REBUILDING
- ORIGINAL BUILDING

## CHAPTER TWO

# STRATIGRAPHY AND CHRONOLOGY

### A. STRATIGRAPHY

In the course of the long history of the city, there accumulated on the semi-impervious and hard original surface, a deposit of nearly 55 ft. burying foundations and buildings of different periods. Such a rise in the levels of the town may partly be accounted for by the artificial packings of mud surviving in the form of ramparts and partly by the destructions and the constructions of different periods of habitations. A section across the passage of the ancient gateway shows a rise of more than 30 ft. between the living surface of the builders of the first rampart and the level on which the people of the last period lived. Thus, there is no doubt that the total accumulation between the first level to the last is more than 30 ft.

The excavations have brought to light, as indicated elsewhere, 25 structural periods, the buildings of which are represented by the remnants of walls and floors lying over one another.

Of these habitation periods, described as *SP.* (Structural Period), except the first two and the last one, the remaining twenty-two are associated with five building periods of the ramparts. A fortress once built lasted evidently for a number of generations and walls and floors were built at different levels against the original wall of the fortress. Thus, structures of as many as seven periods were built against or in association with Rampart 1. Similarly, five structural periods together indicate the total span of life of Rampart 2. Two, three and five structural periods are associated with Ramparts 3, 4 and 5 respectively. They are numbered in the text as *SP.* (Structural Periods) 1, 2, 3, 4 etc.

#### *Cultural Divisions*

The long span of time indicated by these 25 periods of occupation

witnessed very important changes in the material and cultural equipment of the people. The organisation and the building of the defences show changes of a fundamental character almost revolutionizing the very concept of defence. Tools and equipments also show variation in their types and popularity from age to age. The changes are most explicitly mirrored in the pottery which, by its vast numbers and the malleability of the medium, reflects the currents and cross-currents of cultural influences. It has, therefore, naturally been adopted as a criterion for cultural division. It may, however, be noted that the cultural divisions based on other components of culture, equally or even more important than pottery, do not always correspond to those arrived at on the basis of the analysis of pottery. There are certain periods which seem to constitute a clear landmark, as they register the convergence of changes in different aspects of material culture. On the basis of pottery, these twenty-five periods lend themselves to divisions in four broad phases. The first four periods of occupation represent the first or earliest culture of Kauśāmbī, characterised by the prevalence of pottery types analogous to those discovered at Navdatoli, Rangpur, Somanātha and other western Indian sites in a late Harappan or immediately post-Harappan context. These periods are, therefore, marked as *SP.* I. 1, *SP.* I. 2, *SP.* I. 3 and *SP.* I. 4.

The second cultural period, in terms of pottery, comprises Structural Periods 5 to 8. Some of the types of Period I continue, but the characteristic feature of the pottery of the second period is the predominance of the Black-and-Red Ware and the presence of the Painted Grey Ware, which, as available at Kauśāmbī, represents a comparatively late and decadent stage of the Painted Grey Ware of the upper Gangetic Valley, the Punjab and Rajasthan. The periods are marked *SP.* II. 5 to *SP.* II. 8.

The ninth habitation period is distinguished by the appearance of the characteristic ware of the central Gangetic Valley, known as the Northern Black Polished Ware. This ware was in vogue upto the Structural Period 16. The periods from ninth to sixteenth, therefore, are marked *SP.* III. 9 to *SP.* III. 16. It is significant to note that these first three cultural periods do not represent watertight compartments. There are certain structural periods which represent cultural overlapping. In *SP.* II. 5, for example, the pottery types of Period I continue in full force; only a few more types which may be regarded as the fossil types of Period II, make their appearance. Similarly, *SP.* III. 9, which marks the first appearance of N. B. P. Ware. is also characterised by the manufacture of Painted Grey Ware. In fact, the N. B. P. itself shows strong influence of

traditions of painting. The Black-and-Red Ware is present in Periods 1 and II and also upto *SP.* III. 10.

The Structural Periods 17 to 25 constitute one group, the pottery of which is devoid of the N. B. P. Ware. These structural periods have been shown as *SP.* IV. 17 to *SP.* IV. 25.

The main cultural periods indicated by different kinds of pottery do not, however, coincide with significant changes in the nature of the defences. Rampart 1, for example, was built in Period I (*SP.* I. 3), and it continued throughout Period II and lasted upto the first structural period of the N. B. P. Ware or *SP.* III. 9. On the other hand, the introduction of the moat, heralding a very significant change in the planning of the defences, was made in *SP.* II. 5, which also saw the appearance and circulation of coins.

## B. CHRONOLOGY

### *Evidence of Coins*

Coins are almost uniformly distributed in all the periods from II. 5 to the end, and many of them have been discovered in the post-structural pits. The earliest coins are square uninscribed cast coins, which have, on the obverse, elephant to left before standard, sometimes Svastika-topped, and on the reverse, tree in railing, hollow cross, arched hill and taurine. These coins seem to have been current from *SP.* II. 5 to *SP.* III. 16, though a few pieces have been discovered from subsequent deposits and later pits as well. The circular uninscribed cast coin is distributed over *SP.* III. 10 to *SP.* III. 14. The coin, erroneously described as lanky bull type, has been discovered from *SP.* III. 13 to *SP.* III. 15. A large number of tiny uninscribed cast coins are distributed from *SP.* III. 10 to *SP.* IV. 19; two also have been found in *SP.* IV. 20.

Silver and copper punch-marked coins have been discovered from *SP.* III. 10 to *SP.* III. 14.

The inscribed cast coins of the Mitra kings of Kauśāmbī belong to *SP.* III. 15 and *SP.* III. 16. The kings represented are Bṛhaspatimitra, Agnimitra, Ghoṣa or Aśvaghoṣa and probably Sudeva. The coins of the Magha rulers mark the beginning of Rampart 5 in *SP.* 20. IV.

On the basis of the evidence of coins, Rampart 3 represents the period of the Mitra kings of Kauśāmbī who, on grounds of paleography and other historical considerations, have been assigned to the period from the 2nd to the 1st century B. C.

On numismatic grounds, Rampart 5 seems to have been built by the Maghas, who made Kauśāmbī their capital in the second half of the 2nd century A. D.

### *Seals*

The evidence of these coins is also fully corroborated by the evidence of three seals belonging to Rampart 3. One was discovered on the floor of *SP.* III. 16, the other from Rampart 3 and the third in a pit immediately after *SP.* III. 16. Paleographically, as noticed elsewhere, the seals may be assigned to c. 150 B. C. to c. 50 B. C. These seals, with the characteristic Śuṅga paleography, were discovered in levels that yielded Mitra coins. It is further to be noted that *SP.* III. 16 is also the last period in which the N. B. P. Ware occurs. *SP.* III. 15 and III. 16, therefore, can be assigned from the 2nd century to the first half of the 1st century B. C. On account of the first appearance of the coins of the Magha kings, the beginnings of Rampart 5 can be dated to the second half of the 2nd century A. D. The first occurrence of punch-marked coins in the 5th-4th century B. C., is more than likely[1].

### *Evidence of Terracotta Figurines*

Completely moulded plaques with elaborate decorations, products of an artistic tradition that found its most exqusite expression in the art of Bharhut and Sāñchī, have been discovered in the destructions of Rampart 2, at the end of *SP.* III. 14, from the floor of *SP.* III. 15 and *SP.* III. 16 and also a few in the destructions after *SP.* III. 17. Terracottas of this type have been assigned to the Mauryan and Śuṅga periods by authorities on art.[2] For them, a date between 200 B. C. to 50 A. D. will meet with general approval.[3]

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1. Altekar, J.N.S.I., 1953, vol. XV, pp. 25, 26.
2. Coomaraswamy, A. K., Ipek, 1928, p. 67.
3. Gordon, J.I.S.O.A., vol. XI (1943), p. 156.

*Evidence of Arrow-heads*

It has been noticed elsewhere that arrow-head types – (I. 1) to (I. 8), (J) and (K. 1) to (K. 4) – are intrusive to the Gangetic Valley. Types (I. 1) to (I. 8) have generally been recovered from the pits that mark the destruction of Rampart 2 after *SP.* III. 14.

These types are associated with the Bactrian Greeks at Taxila[1] and seem to indicate the same source here as well. According to literary evidence also, the Greeks had advanced into the Gangetic Valley as far as Pāṭaliputra in the 2nd century B. C.

Type (J), belonging to *SP.* IV. 17, 18, was favoured by the Śakas. Type (K) has been discovered from the large scale destructions that marked the end of *SP.* IV. 24 and also of the defences at Kauśāmbī. They seem to be the weapons of the Hūṇas. It is to be noted that the seals of the Hūṇa leader Toramāṇa and of Hūṇarāja were discovered in the pits of the same period and of the same nature in the Ghoṣitārāma monastery. The end of *SP.* IV. 24 can, therefore, be fixed within very close limits. By c. 510 A. D., Toramāṇa had invaded the Saugor[2] district of Madhya Pradesh and, therefore, the end of *SP.* IV. 24 and of Rampart 5 can be dated between c. 510 to c. 515 A. D.

On the basis of the inscribed coins, seals, terracotta figurines and arrow-heads, the beginning of Rampart 3 can be approximately dated in the first half of the 2nd century B. C., of Rampart 4 between 50 B. C. to 50 A. D., the beginning of Rampart 5 in the second half of the 2nd century A. D. and its end between c. 510 to c. 515 A. D. The various sub-periods associated with these three ramparts, therefore, may be tentatively dated as follows :—

| | | | | | | |
|---|---|---|---|---|---|---|
| *SP.* | IV. | 25 | — | c. 515 A. D. | — | c. 585 A. D. |
| *SP.* | IV. | 24 | — | c. 445 A. D. | — | c. 515 A. D. |
| *SP.* | IV. | 23 | — | c. 375 A. D. | — | c. 445 A. D. |
| *SP.* | IV. | 22 | — | c. 305 A. D. | — | c. 375 A. D. |
| *SP.* | IV. | 21 | — | c. 235 A. D. | — | c. 305 A. D. |
| *SP.* | IV. | 20 | — | c. 165 A. D. | — | c. 235 A. D. |

1. Marshal, Taxila, vol. II, p. 547.
2. Eran Inscription of Bhānugupta, Sircar, D. C., Select Ins., No. 38, p. 335.

| | | | | | |
|---|---|---|---|---|---|
| *SP.* IV. 19 | — | c. 95 A. D. | — | c. 165 A. D. |
| *SP.* IV. 18 | — | c. 25 A. D. | — | c. 95 A. D. |
| *SP.* IV. 17 | — | c. 45 B. C. | — | c. 25 A. D. |
| *SP.* III. 16 | — | c. 125 B. C. | — | c. 45 B. C. |
| *SP.* III. 15 | — | c. 185 B. C. | — | c. 125 B. C. |

The average span of a period thus comes to about 70 years. It is to be noted that the average life of a period in the Ghoṣitārāma monastery and in the excavations (1949–50) near the Aśokan pillar is slightly longer and works out to about 75 years.

Assuming the same average span of life for the structural periods associated with Ramparts 2 and 1 and also for the two pre-defence periods, the following dates may be proposed :—

| | | | | |
|---|---|---|---|---|
| *SP.* III. 14 | — | c. 255 B. C. | — | c. 185 B. C. |
| *SP.* III. 13 | — | c. 325 B. C. | — | c. 255 B. C. |
| *SP.* III. 12 | — | c. 395 B. C. | — | c. 325 B. C. |
| *SP.* III. 11 | — | c. 465 B. C. | — | c. 395 B. C. |
| *SP.* III. 10 | — | c. 535 B. C. | — | c. 465 B. C. |
| *SP.* III. 9 | — | c. 605 B. C. | — | c. 535 B. C. |
| *SP.* II. 8 | — | c. 675 B. C. | — | c. 605 B. C. |
| *SP.* II. 7 | — | c. 745 B. C. | — | c. 675 B. C. |
| *SP.* II. 6 | — | c. 815 B. C. | — | c. 745 B. C. |
| *SP.* II. 5 | — | c. 885 B. C. | — | c. 815 B. C. |
| *SP.* 1. 4 | — | c. 955 B. C. | — | c. 885 B. C. |
| *SP.* 1. 3 | — | c. 1025 B. C. | — | c. 955 B. C. |
| *SP.* 1. 2 | — | c. 1095 B. C. | — | c. 1025 B. C. |
| *SP.* 1. 1 | — | c. 1165 B. C. | — | c. 1095 B. C. |

On this basis the four cultural periods are to be dated as follows :—

| | | |
|---|---|---|
| Kauśāmbī I | — | c. 1165 B. C. to c. 885 B. C. |
| Kauśāmbī II | — | c. 885 B. C. to c. 605 B. C. |
| Kauśāmbī III | — | c. 605 B. C. to c. 45 B. C. |
| Kauśāmbī IV | — | c. 45 B. C. to c. 580 A. D. |

The beginning of fortification may be dated to c. 1025 B. C., of the first moat and the laying of the corresponding road to c. 885 B. C. and the beginning

of the system of guard-rooms to c. 325 B. C. The dates of the building of Ramparts 2, 3, 4 and 5 will be respectively c. 535 B. C., c. 185 B. C., c. 45 B. C. and c. 165 A. D. Ramparts 3 and 5 appear to have been built by the Mitras and Maghas respectively.

According to this scheme of chronology, the beginning of the N. B. P. Ware is to be placed in c. 600 B. C., a possibility fully supported by the evidence of the earlier excavations at Kauśāmbī[1] and other sites[2] in the Gangetic Valley. The evidence from Taxila also confirms this dating. The equation[3] of this ware in north-western regions with the spread of the Mauryan dominion does not seem to be warranted by the discovery of sixteen of the Bhir Mound sherds at depths between seven and thirteen feet and only two above seven feet, which level is regarded as contemporary with Alexander's invasion. The ware, according to Taxila evidence, is essentially pre-Alexander and six or seven feet of accumulation, normally, must have taken at least a couple of centuries. The evidence, therefore, indicates a period about 525 B. C. for the first introduction of this ware in this region. It is well known that the central Gangetic Valley was the area of its origin, and its spread in the adjoining regions, particularly the north-western, must have taken some time. On this showing, a date round about 600 B. C. for its origin in its homeland is indicated by the evidence at Taxila also.

The Carbon–14 date for pottery from Navdatoli, analogous to that from Kauśāmbī Period I, is 1500 B. C. to 1100 B. C.[4] According to the scheme of chronology worked out here, this period at Kauśāmbī has been dated from c. 1165 B. C. to c. 885 B. C.

Thus, the chronology, worked out on the basis of stratification and the associated datable finds, is fully supported by the evidence furnished by other sites in the Gangetic Valley and in other regions of the Indian sub-continent.

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1. Ann. Bibl. Ind. Arch., 1958, vol. XII, Fig. 1, pp. XXXIX.
2. Lal, B. B., Excs. at Hastināpura, A. I., Nos. 10 and 11, p. 23
3. Wheeler, Early India and Pakistan, pp. 30, 31.
4. I. A., 1958-59, p. 31.

## CHAPTER THREE

## LAY-OUT OF THE EXCAVATED AREA

The ruins of the ancient city of Kauśāmbī are situated on the left bank of the Yamunā, 32 miles south-west of Allahabad. Traces of ancient habitation cover an area of about eight square miles, part of which was defended by a complex system of fortification. The mounds of the ancient rampart, together with the surrounding moat, form a semi-circle with the Yamunā as the base (Pl. 5). The ramparts have a peripheral circuit of more than 21,000 ft. or approximately 4 miles. The average height of the rampart is about 35 ft., the individual towers being as high as 70 to 75 ft.

The three sides, eastern, northern and western, of the rampart, marked by a series of salients and towers at regular intervals (Pls. 6-10), are pierced by 11 gateways, 5 of which were the principal ones: 2 in the eastern, 2 in the northern and 1 in the western wing. The remaining 6 were subsidiary gates. The principal gateways show some special features in their construction. Of these, one on the western side and the other on the eastern side are situated on a line running parallel to the Yamunā, which cuts the ancient mound practically through the centre. These two are most complex and elaborate. The western one (Pl. 11) is situated at the apex of a triangle formed by the two salients into which the western side is divided, the southern one measuring 1,550 ft., the northern, 1,950 ft. and the base of this triangle being 2,550 ft. The moat in this area has a maximum width of 1,600 ft. and is divided into two by two mounds situated on the base of the triangle at a distance of 540 ft. Evidently, the two flanked the passage through the western gateway. Like the other principal gateways, the two on the northern side are also provided with watch-towers, situated on the other side of the moat having an average width of 250 ft. There were six subsidiary gateways—two in each wing. They were less wide and apparently had a simpler plan.

The eastern gateway had a number of distinguishing features, (1) a mud-

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# KAUŚĀMBĪ, 1957-59
## PLAN OF THE DEFENCES

SCALE OF FEET
4 0 8 16 24 32 40 48 56

SCALE OF METRES
1 0 2 4 6 8 10 12 14 16

SADAS
ŚYENA CITI (III.16)
REVETMENT 3 (III.15)
REVETMENT 2 (III.10)
15(III.15)
SLOTS
4(III.10)
STONE FLOOR
9(III.13)
RAMPART 2
MANHOLE 2
6(III.11)
MANHOLE 1
2(I.4)
WEEP HOLES
SLOTS
FL.1(I.1)
1(I.2)
3(II.7)
DEBRIS OF REVETMENT 1A(II.8)
RAMPART 1
REVETMENT 1 (I.3)
A
17(IV.17) POST HOLE
TOWER
18(IV.17)
STAIR 2 (IV.20)
21(IV.20)
21D(IV.20)
21A(IV.20)
20(IV.17)
STAIR 1 (III.11)
14(III.15)
8(III.12)
10(III.13)
DR.1(III.10)
16(III.15)
5(III.11)
FL.3 (II.8)
PASSAGE (II.5)
FL.2(I.3)
FL.4(III.14)
21B(IV.20)
21C(IV.20)
14A(III.15)
14B(III.16)
DR.2 (III.14)
POST HOLES
17A(IV.17)
23A(IV.25)
13C(III.14)
PF.1(III.16)
DOOR
19(IV.17)
18A(IV.17)
TOWER
RAMPART 1
SUBSIDIARY
MOAT
ROAD 2 (II.7)
52 FEET OMITTED
ROAD 1 (II.5)
ROAD 3 (III.10)
ROAD 2 (II.7)
ROAD 4 (III.15)
B

PF.1 = PLATFORM 1
DR.2 = DRAIN 2
FL.3 = FLOOR 3
2(I.4) = WALL 2. PERIOD I. STRUCTURAL PERIOD 4

B.B. Kapoor

bund, which served as a curtain for the gateway, with a maximum length and width of 350 ft. and 90 ft. respectively; (2) a passage of 25 ft. width between this bund and the rampart; (3) a tower measuring 140 ft. x 90 ft. situated on the other side of the moat at a distance of 275 ft. from the terminus of the bund; (4) two towers at the top of the rampart opposite the outer tower. The maximum width of the moat in this area is 480 ft. It is evident that the tower on the outer side of the moat, the moat, the curtain and the two towers at the top of the rampart, formed part of a carefully laid out defence complex. A wall measuring 262 ft. in length formed the northern flank of this complex.[1]

## KAUŚĀMBĪ IN LITERATURE

Kauśāmbī was the capital of the Vatsas who find mention in the Aitarcya Brāhamaṇa[2], the Gopatha Brāhamaṇa[3] and the Kauśitaki Upaniṣad[4]. The Śatapatha Brāhmaṇa mentions one Proti Kausuru Bindi, a citizen of Kauśāmbī. The city[5] is also referred to in the epics, the Purāṇas, the Tripiṭakas and in other Sanskrit and Pāli texts. The Buddhist pilgrims, Fahien and Yuan Chwang, visited the city. It is mentioned in the inscription on the Aśokan pillar at Allahabad, the Kaḍā inscription of the Pratīhāra king Yaśapāla and the pillar at Kauśāmbī itself. These literary records testify to the existence of the city from at least the later Vedic period upto the Mughal period.

## A BRIEF HISTORY OF THE EARLIER EXCAVATIONS

These ruins on the Yamunā were identified with the ancient Kauśāmbī of literature by Cunningham.[6] The University of Allahabad[7] started excavations in 1949 near the Aśokan pillar adjacent to the excavations conducted by the Archaeological Survey of India in 1937-38. The subsequent excavations by the

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1. I. A., 1954-55, p. 18 and pls. XXX and XXXI.
2. A. B. VIII. 14.
3. Gop. B. IV. 1.
4. Kauśit. Up. I. 2. 9.
5. B. C. Law, Kauśāmbī in Ancient Literature, Mem. Arch. Surv. Ind., No. 60, Delhi, 1939.; Sharma, G. R. Kauśāmbī, 1949-50 (in the press); N. N. Ghosh, Early History of Kauśāmbī, pp. 93-97.
6. Arch. Surv. Ind., vol. 1, p. 306.
7. Sharma, G. R., Kauśāmbī, 1949-50 (in the press).

University (1951-56) led to the discovery of the monastery of Ghoṣitārāma[1], the abode of Buddha at Kauśāmbī.

## OBJECTIVES OF THE PRESENT EXCAVATIONS

The aim of these excavations was to study the history of the defences at Kauśāmbī and to ascertain the antiquity and the nature of the original rampart and its successive repairs, if any, and also the changes made in it in different periods. Excavations of the previous years made it clear that the buildings in the city were generally planned with reference to the cardinal points. Surface examination of the area revealed that the southern tower at the top of the rampart, the toe of the rampart near the curtain as well as the terminal of the curtain, were in one line running east-west. A trench was, therefore, laid across them and was, later on, extended on the northern, southern and western sides according to needs. The excavations revealed that the earliest structure was situated at a depth of 54 ft. from the existing level, across the rampart, in the city, which has been considerably denuded since it was abandoned. The total habitation deposit intervening between the first and the last period must have been more than 54 ft. and is a vertical record of the city's life.

This habitation deposit accumulated during twenty-five building periods, of which two are pre-defence, twenty-two are associated with five ramparts and the twenty-fifth was built over the ruins of the last defences of the city. With the first rampart are associated as many as seven building periods marked *SP.* I. 3, 4, II. 5, 6, 7, 8 and III. 9; with the second, five building periods marked *SP.* III. 10, 11, 12, 13 and 14; with the third rampart, two building periods marked *SP.* III. 15 and 16; with the fourth, three building periods marked *SP.* IV. 17, 18 and 19 and with the fifth rampart, five building periods marked *SP.* IV. 20, 21, 22, 23 and 24.

### *Pre-Defence Structures*

*SP.* I. 1—Fl. I. —The earliest human habitation at the site is represented by a floor (Pl. 15 A) built on layer 27, a thin mud accumulation above a very

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1. I. A., 1953-54, p. 9; 1954-55, p. 16; 1955-56, p. 20; 1956-57, pp. 28, 29; Ann. Bibl. Ind. Arch., Kern Inst., Leyden, vol. XVI, 1958, pp. xxxvi to xlv.

hard, compact, semi-permeable natural soil full of small lime accretions. This one brick floor is available in a very disturbed condition.

*SP.* I. 2—A sandy layer, marked 26 in the Section, accumulated possibly due to flood on Fl. I. 1. The foundation of Wall 1 (Pl. 15 A) was laid into this layer. Contemporary with this wall, there were some other structures in the area, the evidence of which is furnished by bricks lying in a disturbed condition below Revetment 1 of Rampart 1 built in the subsequent period. The wall and the debris of bricks are sealed by layer 25.

### *Beginning of the Defences*

#### *Rampart* 1 *and Revetment* 1 (*Pls.* 13, 14; *Figs.* 2, 3)

*SP.* I. 3. The third period is a landmark in the history of the city. It was during this period that the city was protected by a massive defence system. The core of Rampart 1 was built of hard, compact and thoroughly rammed clay, evidently excavated from the natural soil. It is significant that the first rampart is completely devoid of pottery and other material indicating human association. The outer side had a sharp slope which was revetted externally by a burnt brick revetment about 9 ft. in thickness at the base and available to a height of 40 ft. 5 ins. comprising 151 courses. It has been exposed to a length of 43 ft. The notable feature of the revetment is a batter which has two different angles, of 15° upto the first thirty courses and of 40° in the upper courses. The bricks measure on an average 19.5 ins. x 13 ins. x 2.75 ins. Only new and complete bricks were used. Except in the top fourteen courses, the bricks were laid throughout in the English bond. Every succeeding course formed a footing of about 3 ins. width. The revetment was covered by 2 ins. to 3 ins. thick plaster,[1] composed of mud and lime (Pl. 16 B). The carbonate of lime is present to the extent of 5.7-5.8%, and fine sand, silt and clay account for nearly 87%.

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1. Report of chemical analysis by Dr. B. B. Lal, Archaeological Chemist in India, Deptt. of Archaeology :—

"Several lumps of plaster from the earliest defence structures at Kauśāmbī were received in this Laboratory for chemical analysis. A general examination of the specimen revealed that all the lumps were more or less alike in texture and compactness and apparently came from the same source.

Two lumps of the plaster were selected for chemical analysis, taking care to select such

The weathering and exposure of the plastered surface and its subsequent burial under a thick deposit of sand, silt and clay, might have been responsible for reducing the percentage of lime. The ideal condition of preservation of Revetment 1 was due to the protective covering provided by the plaster which formed a distinctive layer across the section.

The foundations of the revetment were laid in layer 25 and layer 24 composed of earth, gritty material and sherds, constituted the first pavement against it. Clear traces of the brick-floor of the passage through Rampart 1 and its revetment have been laid bare under the blocking of the passage in later periods (Pl. 16 A).

*SP.* I. 4—Evidence of building activity during this period is provided by seven weep-holes (Pl. 15 A) cut into Revetment 1 at a regular interval of 6 ft. between courses 15 and 18 from the bottom. The seepage seems to have impaired the lower portion of the revetment and caused it to bulge out. It became necessary to provide these weep-holes and also to build a retaining wall (Wall 2)

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pieces as showed maximum contrast in colour and texture. One lump was slightly whitish and the other yellowish. Their chemical analysis are recorded below :—

*Whitish lump from plaster specimen.*

| | |
|---|---|
| 1. Lime (CaO) | 4·81% |
| 2. Insolubles (Fine sand, silt and clay) | 87·99% |
| 3. Oxides of iron and aluminium+carbon dioxide (extracted by hydrochloric acid) | 7·20% |
| Total | 100·00% |

*Yellowish lump from plaster specimen.*

| | |
|---|---|
| 1. Lime (CaO) | 4·73% |
| 2. Insolubles (Fine sand, silt and clay) | 86·06% |
| 3. Oxides of iron and aluminium+carbon dioxide ($Fe_2O_3$+$Al_2O_3$+$CO_2$) Extracted by Hydrochloric acid (by diff.) | 9·21% |
| Total | 100·00% |

The above results show that the two lumps are almost alike in chemical composition. The specimen is, therefore, composed of mud and lime, the carbonate of lime being present to the extent of 5·7-5·8%. The aqueous extract of the specimen shows a faintly alkaline reaction. Caustic lime (CaO) is, therefore, present in detectable amount although most of the lime has undergone carbonation. The specimen is soft and crumbles to a fine powder when rubbed between fingers. Clay and silt account for the greater part of the insoluble matter; very fine sand is, however, in appreciable quantities. It is, therefore, concluded that fine alluvial clay was used for preparation of the plaster, which was imparted some strength by the addition of lime to the extent of about 5% of the clay-lime mixture."

in order to strengthen the revetment. These weep-holes discharged themselves into circular unlined pits (Pl. 15 B) with a diameter of 1 ft. 9 ins., cut through layers 24, 25, 26, 27 and also the natural soil. Layer 23 is the contemporary accumulation of this period.

### *Road, Moat, Subsidiary Rampart and Raising of the Passage (Figs. 2, 3)*

*SP.* II. 5—Period 5 constitutes another landmark in the evolution of the defence system. The significant addition of the period is digging of the earliest moat (described on pp. 38-40). The building of Subsidiary Rampart 1, the construction of the first roads between the subsidiary rampart and the moat and also on the outer side of the moat, and the raising of the level of the passage through the main gateway, were logical corollary of the digging of the moat.

*Subsidiary Rampart* 1—At a distance of about 24 ft. from Revetment 1, was constructed a mud bund with a basal width of 32 ft. and an approximate height of 18 ft. Exposed to a length of 80 ft., it was coeval with the moat and was built of clean rammed mud, similar in colour, composition and material to the core of Rampart 1. This subsidiary rampart served the double purpose—protection of the revetment from floods and the over-flow of the moat, and as a screen to the main passage.

Between the foot of Subsidiary Rampart 1 and the moat, Road 1 (p. 40) was laid.

*Raising of the Passage Level*—The earlier passage through the main gateway was sealed by layer 22. The foundations of the new passage (Pl. 16 A) of this period were laid in this layer. New and complete bricks were used and laid in the English bond.

*SP.* II. 6—There does not appear to have been much building activity during this period. The only evidence of construction is furnished by the debris between Walls 1 and 3 and a floor discovered in an extremely fragmentary condition.

*SP.* II. 7—The period witnessed the construction of Wall 3, repair of the passage and accumulation of a distinctive deposit of black colour looking like

ancient humus. A new road (Road 2) was laid over the earlier Road 1 and the moat (Moat 2) was re-excavated.

*Wall* 3 (Pl. 15A)—Wall 3 was constructed at right angles with Revetment 1 at its southern available end. It is available to a height of 14 courses and was built to serve as a revetment for the packing against Revetment 1. The building of this new revetment signified a considerable change in the plan of the defences.

The passage through the gateway was repaired after an extensive destruction, the evidence of which is furnished by the visible damage to the floor at its top, the accumulation and subsequent levelling of debris of bricks and the renovation of the floor.

At the top of Revetment 1, accumulated a deposit of an average thickness of 4 ins. (maximum 7 and minimum 3 ins.) (Pl. 18 B). This level was evidently exposed for a very long period without much disturbance so that the decayed vegetation led to the formation, under favourable climatic conditions, of this thin deposit of black colour. It is to be noted that this ancient humus has been exposed in the course of excavation in other areas of the site and also can be seen in the sections made by rain-gullies even outside the ramparts.

*SP.* II. 8—The period witnessed extensive repairs in Revetment 1 and major building activities in the area. Throughout the five structural periods of its existence, the top of the revetment had remained unchanged. But it was during this period that the rampart was raised by about 8 ft. Mud-blocks were laid which now give an impression of mud-bricks (Pl. 18 B). The top was finally covered with sandy earth full of small kankar nodules. A sharp break in the construction showing contrast with the original edge of the revetment, furnishes the evidence of rebuilding and raising of Revetment 1 during this period. The original top of the revetment was maintained as such by two courses of bricks laid breadthwise. In the repair the builders lost sight of this and since they also faithfully laid bricks in the English bond, the alternate courses of headers and stretchers in the repaired portion, fell out of step with the original revetment. The unequal sinking of the original and the repaired portion has left a sharp break between the two (Pl. 17).

An additional wing of the revetment, (marked as Revetment 1 A in the

plan) built at the southern end of Revetment 1, is now available in the form of collapsed debris upto a length of 73 ft. (Pl. 18 A). The courses of this additional construction are bonded with the courses of the repair of Revetment 1 and form an obtuse angle at the joint.

To this period also belongs a two course thick passage-floor (Fl. 3), exposed to a length and width of 28 ft. and 15 ft. respectively, made of brick-bats. It was covered with a thin contemporary deposit yielding Painted Grey Ware and Black-and-Red Ware.

*SP.* III. 9—The rampart was raised by 3 ft. and Revetment 1 was re-built and raised by 14 courses for the last time. These courses are laid, sealing the junction of Revetment 1 and the additional construction of the earlier period. It is significant to note that the practice of laying bricks in the English bond, in alternate courses of headers and stretchers, strictly adhered to from the beginning of Revetment 1 (I. 3) upto the last building period (II. 8), was now abandoned and the fourteen courses were laid practically in headers, only a few stretchers being used at the end.

The total life-span of Rampart 1 and its revetment, is indicated by six structural periods subsequent to its original build. The revetment witnessed, during its life, significant changes in the conception of the planning of the defence system and also in the cultural equipments of the people. There is evidence of large scale disturbances at the end of *SP.* II. 9 shown clearly by a huge pit extending in practically all the trenches and at places as deep as 12 to 14 ft. It is full of N. B. P. Ware of extremely good quality and also Painted Grey Ware and fragments of stone. Evidently, there was some stone-building the debris of which found their way into this pit.

*Rampart* 2 *and Revetment* 2 (Pls. 12,19)

*SP.* III. 10 saw intense building activity which brought into being a number of major structures in the area and a complete change in the plan of the defences. The top of the rampart was raised by about 6 ft. while the area between the outer face of the revetment and the subsidiary rampart was packed with loose earth, ash, sand and clay. A new subsidiary rampart was built, extending the area of the defences by 79 ft. The packed platform constituting Rampart 2 was revetted on the northern side by brick-facings and on the eastern, by a curved wall (Wall 4). The moat was re-excavated and Road 3 was relaid

between the foot of Subsidiary Rampart 2 and the moat and also over Roads 1 and 2, on the other side of the moat. Drain 1 also belongs to this period.

Revetment 2 is available to a length and height of 59 ft. and 19 ft. respectively. It was battered back to 30°. The bricks, measuring on an average 18 ins. × 12 ins. × 2.5 ins., were laid in the English bond. At its western end, there was an oblong bastion measuring 8 ft. × 6 ft. Revetment 2 is built directly against the packing, over the passage of Revetment 1, with which it forms an angle of 70° on the plan. With this revetment are associated five structural periods.

*SP.* III. 10—Wall 4 is now available in an extremely disturbed condition upto a length of 11 ft. and a height of 13 courses. It was a curvilinear structure and served the same purpose as its successor (Wall 6).

Available to a length of 12 ft. 6 ins., Drain 1, three courses deep and with a channel 1 ft. 2 ins. wide, is built over a huge pit that marked the end of Revetment 1.

With a basal width of 38 ft. and available to a height of 13 ft. 6 ins., Subsidiary Rampart 2 was built of earth, yellowish in appearance, full of N. B. P. Ware of fine quality with an occasional sprinkling of Painted Grey Ware. It also yielded punch-marked coins. Its sides were exposed for a considerable period and bones were dumped on its western face (city side).

*SP.* III. 11—To this period belong the curved Wall 6, Wall 7 and Stair No.1. Over the debris of Wall 4, was built Wall 6 (Pl. 20), measuring 63 ft. 3 ins. and 67 ft. 10 ins. respectively, on the inner and outer (city) sides of the curve. It was 6 ft. 10 ins. wide and encased a stone-paved passage 6 ft. 10 ins. deep and 1 ft. 9 ins. wide. The wall, available to a height of 7 ft. 9 ins. and comprising 32 courses, was built in the packing against Subsidiary Rampart 2. The lower 22 courses are extremely irregular and make it clear that the wall was built against a packing. At its northern junction with Revetment 2, there were traces of guard-rooms.

The passage (or drain?) had a corbelled arch finally capped with bricks laid width-wise (Pl. 21 A). The lower fourteen courses on the two inner sides are

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# KAUŚĀ

# KAUŚĀMBĪ 1957-59

## SECTION ACROSS THE DEFENCES ON AB

SCALE OF 2 1 0 4 8 12 16 FEET

SCALE OF 1 0 1 2 3 4 METRES

WEST

R5 R4 R3 R2 R1

PIT 2

PIT 11

REPAIRS OF R1

MUD BLOCKS

ANCIENT HUMUS

RAMPART 1

REVETMENT 1(I.3)

PLASTER

12 13 14

PIT 10

6 (III.II)

STONE FLOOR

16 17 18

PIT 8

15

CONTINUED BELOW LEFT

PIT 12

PAINTED GREY WARE

NORTHERN BLACK POLISHED WARE

BONES

19 20 21 22 23 24 25 26

WEEP-HOLE

SUBSIDIARY RAMPART 1

SUBSIDIARY RAMPART 2

PIT 1A

MOAT

BONES

ROAD 1

PIT 15

21

NATURAL SOIL

LANKY BULL COINS
UNINSCRIBED CIRCULAR CAST COINS
UNINSCRIBED RECTANGULAR CAST COINS
PUNCH-MARKED COIN
6(III.II) = WALL 6, PERIOD III, STRUCTURAL PERIOD II

CONTINUED FROM TOP RIGHT

PIT 1A

SR 2

17

PIT 15

NATURAL SOIL

MOAT

E.A.S.I.

PACKING FOR ROAD 5

ROAD 5(II.5)

ROAD 4(II.5)

ROAD 2(II.7)

20

ROAD 1(II.5)

in one plumb and the last fourteen form the corbel. At either end of this passage was a pair of slits, 3.5 ins. wide and 3.5 ins. set inside the walls, into which planks may have been inserted (Pl. 22 A). In the curved wall, two man-holes (possibly ventilators) (2 ft. × 2 ft.) divide the extant length into three nearly equal parts (Pl. 21 B). It appears to have been a passage and not a drain because the level of the pavement is higher in the middle and has a gradual slope of only 1 in. towards the two ends. There is no opening in the wall in the middle and it could not have received any drain-water from any area. The subsequent filling in the passage, was also not the usual stuff of drains. The passage may have served as a secret underground tunnel.

To this period also belongs Wall 5, running east-west, available to a height of two courses. It is 3 ft. wide and has been exposed to a length of 3 ft.

*Wall* 7—Available upto a height of 16 courses and with a width of 2 ft. 1 in., it is an isolated structure and its relationship with other contemporary structures cannot be determined.

*Stair* 1 (Pl. 22 B)—With the existing height of 9 ft. 3 ins. and a width of 4 ft. 5 ins., Stair 1 comprises 16 steps, each consisting of 2 courses of bricks. Each step has a height of 6 ins. and a tread of 7 ins. and the bricks are laid in the English bond. The first ten steps were constructed apiece in one alignment. The steps lead to a tower probably situated on the southern side of Rampart 2. It may, therefore, be inferred that watch-towers came into existence during this period. The inference is supported by the excavation of another tower in the eastern rampart situated at its northern end (Pl. 10).

*SP.* III. 12—Wall 8, available to a height of two courses, was built during this period. The curved Wall 6 was also rebuilt for which evidence is furnished by the slit at its southern end. Man-hole 2 of Wall 6 was closed, Stair 1 was repaired and the last five steps added thereto, thus changing its alignment and increasing its width to 5 ft.

*SP.* III. 13—There was a considerable building activity in this period and a major change in the organisation of defence. Rampart 2 was raised by packing mud yellowish in colour. Revetment 2 was repaired. Walls 9, 10, 11, 12, 12 A and Floor 4 also belong to this period.

Wall 9, with a length and width of 18 ft. and 2 ft. 6 ins. respectively and with a height of 8 courses, partly overlapped the curved Wall 6 of the earlier period. The erection of Walls 10, 11, 12 and 12A brought into being the system of guard-rooms at the top of the rampart, backing a passage, provided with flank walls, from the top to the toe of the rampart (Pl. 24). Walls 10, 12 and 12 A formed part of the guard-rooms and Wall 11 served as the northern flank. The guard-rooms may have been flanked by a tower on each side, the existence of which has been noticed in *SP.* III. 12. The building of the towers, guard-rooms and the flanks completely altered the conception of defence in which they now played as important a role as the revetments and the bastions. With the erection of the guard-rooms with only a ten ft. wide passage at the top of the rampart, this gateway could have hardly functioned as a principal gateway of the city, which was now evidently shifted to the north by about 400 ft. and against the northern side of which was built a flank wall[1], measuring 262 ft. in length.

*SP.* III. 14—To this period belong Walls 13, 13A, 13B, 13C, forming a central room, 12 ft. 4 ins. in length, flanked by one sentry-box on either side, 4 ft. in width. The erection of these three rooms marked the beginning of the plan of guard-rooms which continued till the end (*Fig.* 4). Wall 11 was rebuilt and Drain 2, available to a length of 18 ft. 6 ins. and with a channel, 1 ft. 4 ins. wide, was laid. Floor 5 also belongs to this period.

*End of Rampart* 2—Extensive conflagration resulting in the accumulation of a deposit of ash throughout the passage and also the destruction of Revetment 2 offer unmistakable evidence of invasion. The pits cut during this period are packed with ash and charcoal. It is significant that double-tanged arrow-heads have been discovered in large numbers, buried in the ash deposits on Floor 5 as well as in the destructions of Revetment 2. They seem to indicate the source of the destruction.

*Rampart* 3 *and Revetment* 3 (Pl. 19)

*SP.* III. 15—With the construction of Rampart 2 the defences at Kauśāmbī had attained their present dimensions. The construction of Rampart 3 hardly meant any addition to their width and the height was raised only by

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1. I. A., 1954-55, Pl. XXXI.

about 5 ft. Though Revetment 3 was built, the system of defence centering on a mud rampart externally revetted with burnt brick wall was virtually abandoned. The guard-rooms, the flank-walls and the towers at the two sides on the top, now held the key to the defence-complex. To this period belong Revetment 3, Walls 14, 14 A, 15, 16 and Floor 6. The most important discovery of this period was that of a *Śyenaciti* of the *Puruṣamedha* (human sacrifice), described in chapter eight. Walls 13 A and 13 B were also rebuilt. Revetment 3, available to a length of 51 ft., is 74 brick-courses high with a batter of 20°. It is for all practical purposes a wall, 3 ft. in width. The batter was apparently due to the fact that the wall was constructed to repair the brick facings of Revetment 2, destroyed in the invasions that marked the end of *SP.* III. 14. It is evident that the functional basis of a revetment, as also the principle underlying it, was not correctly understood. Wall 15 is its return wall and does not form a right angle with it. It is also to be noted that the main spine of the *Śyenaciti*, running north-south, divides the angle into two equal parts.

Walls 14 and 14A enclose a passage, 17 ft. wide, running from the guard-rooms upto the toe of the rampart, opposite the watch-tower, on the other side of the moat and at the southern end of the curtain. These two walls are in one plumb on the inner side, but the outer side was uneven, evidently because the walls were built upto their entire height against the packing of the ramparts. The passage, provided with a floor (Fl. 6) of *surkhi*, served virtually as a tunnel from the guard-rooms to the toe of the rampart, protected on the two sides by the packing of the ramparts. Walls 13, 13A, 13B, 14 and 14A formed three rooms, the central one being 12 ft. 4 ins. in length and the side ones having a width of 4 ft. each. The passage through the central room was 8 ft. 6 ins. wide. Wall 16, running parallel to Walls 14 and 14 A and exposed to a length of 15 ft. 9 ins., served as a northern flank on the city side.

*SP.* III. 16—There was no change in the plan. The Walls 13, 13A, 13B, 13C, 14, 14A and 14B were rebuilt, Floor 7 was laid and the only independent construction of the period is a platform, measuring 7 ft. 6 ins. × 6 ft. A number of coins of the Mitras have been discovered from Floors 6 and 7. The period ended with an invasion which has left evidence in extensive burning of the site, forming an accumulation of an ash layer in which are buried fragments of bones and a few pieces of skull. According to the available evidence, the N. B. P. Ware also ended with this period.

*Rampart* 4

*SP.* IV. 17—This period witnessed the repair and raising of the rampart, rebuilding of Walls 13A, 13B, 13C, the construction of new Walls 17, 17A, 18, 18A, 19, 20 and also Floor 8. Walls 17 (4 ft. 6 ins. wide) and 17 A (3 ft. 6 ins. wide) are available to a length of 50 ft. and enclose the central passage through the ramparts, 31 ft. 6 ins. wide, upto a length of 37 ft. and 25 ft. 6 ins. wide towards the toe further onwards. Walls 18 (4 ft. 3 ins. wide) and 18A (3 ft. 3 ins. wide) are the return walls of Walls 17 and 17A and served as retaining walls of the two mud-packed towers that flanked the guard-rooms. They are available to a length of 13 ft. 6 ins. and 11 ft. respectively, and have stepped foundations on account of the gradient of the towers. Wall 19, now in a collapsed condition, served as the northern flank of the passage through the guard-rooms on the city side.

Wall 20 was built over Wall 13 of the earlier period and formed the southern wall of the guard-rooms. Floor 8 of the period was made of *surkhi*. Three post-holes, one to the north side of Wall 17 and the remaining two to the south of Wall 17A, which cut through Stair 1 and Wall 11, supported the posts needed for scaffolding in the building of Walls 17 and 17A.

*SP.* IV. 18—The plan remained unaltered; walls of the earlier period were rebuilt and reused. Floor 9, constructed during this period, bears traces of conflagration, probably due to an invasion indicated by the accumulation of a layer of ash and charcoal. Another floor (Fl. 10) of *surkhi* was built in this very period.

*SP.* IV. 19—There was no major change in the plan of this period; all the walls of *SP.* IV. 18 were rebuilt and a new floor (Fl. 11) was laid.

Walls 13C and 20 furnished the clearest evidence of the three building periods associated with Rampart 4. Of Wall 20, for example, the first six courses belong to *SP.* IV. 17, the next four with a width of 3 ft. 10 ins. to *SP.* IV. 18 and the last seven courses at the top with a width of 2 ft. 8 ins. to *SP.* IV. 19.

At the end of *SP.* IV. 19 the story of Rampart 4 ended in extensive conflagration and destruction indicating an invasion during which all the buildings were razed to the ground.

*Rampart* 5

*SP.* IV. 20—This period seems to represent a very important epoch in the life of the city. The height of the rampart was raised for the last time, the ground levelled and the guard-rooms rebuilt on new foundations by the erection of Walls 21, 21A, 21B and 21C. Walls 21 and 21C have a width of 5 ft. and Walls 21A and 21B, a width of 3 ft. 6 ins. and 3 ft. 10 ins. respectively. The central room has a width of 12 ft. 2 ins. with a passage of 8 ft. 6 ins., flanked by two sentry-boxes, the southern one having a width of 6 ft. 3 ins. and the northern measuring 8 ft. 2 ins. Each of these rooms measures 12 ft. 3 ins. in length. Floor 12 is the first floor associated with these constructions. The flank Walls 17, 17A as well as Wall 18 were also rebuilt in this period on the earlier foundations. To the west of the southern sentry-box, was built a flight of steps (Stair 2), available to a height of 11 steps with a tread of 10 ins. and an average rise of 9 ins. (Pl. 23). These steps probably led to a tower on the southern side, retained by Wall 18, now rebuilt. Wall 22, available to a height of five courses and a length of 5 ft., is the only other construction of this period but its relationship with other contemporary structures cannot be determined.

*SP.* IV. 21, 22, 23 and 24—Without any substantial modification of the plan, the walls of the preceding period were rebuilt and reused and, conseqent to the rise in the levels, floors were added, of which Floors 13 and 14 of *SP.* IV. 21 and IV. 22 respectively have survived.

*SP.* IV. 24 witnessed destruction on an unparalleled scale. The entire area was burnt down and the buildings were almost razed to the ground. Evidently, it was the result of a violent assault that shook the city to its very foundations. The defences that had served the city from *SP.* I. 3 to IV. 24 were finally abandoned and henceforth throughout its remaining life, the town was defenceless. The barbed arrow-heads Type (K), which make their appearance for the first time in large numbers, were obviously the instruments of massacre, pillage and unprecedented devastations. It is to be noted that stratigraphically the seals of *Toramāṇa* and *Hūṇarāja*,[1] discovered in the excavations of Ghoṣitārāma, belong to the period of these destructions.

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1 I. A., 1954-55, p. 18, Pl. XXXII B.

*Post-Rampart*

*SP.* IV. 25—Walls 23, 23 A and 24 were constructed during this period and Walls 21 and 21 C were rebuilt with ledges on the older foundations. Walls 23, 23 A and 24, measuring 8 ft., 2 ft. 9 ins. and 5 ft. 3 ins. in length and 4 ft. 7 ins., 4 ft. 6 ins. and 5 ft. 10 ins. in width respectively, were built on the levelled debris of the preceding period. The scheme of guard-rooms was completely abandoned and these new constructions had probably nothing to do with the defences of the city.

## MOAT AND ROADS

*The Moat* (*Pls.* 26 *A and* 26 *B*)

The existence of a moat encircling the ramparts could be clearly deduced on the basis of surface observations even before the excavations. The existence of a tower on the other side of the moat in alignment with the passage through Rampart I and also the guard-rooms has already been noticed. The total width of the moat in this area is 480 ft. and the tower, measuring 142 ft. x 92 ft., is situated at a distance of 275 ft. from the toe of the rampart. The excavations revealed the existence of the channel of the moat at the foot of the rampart and roads of four periods and the bank for a fifth between the channel and the tower, and roads of two periods between the Subsidiary Rampart 1 and the moat. The roads helped in determining the stratification and the relative chronology of the moat. The roads between the tower and the channel at the foot of the rampart divided the moat into three parts:

(i) a seventy feet wide channel flanked on the two sides by roads, one at the foot of the rampart and the other between this channel and the tower;

(ii) a reservoir of water formed by the approximately 13 ft. high bank to the south and the east of the road and tower and the channel of the moat on the other sides;

(iii) the channel and the reservoir, being joined to the east of the watch-tower and also at the foot of the rampart on the northern side of the road, forming, when flooded, a moat 480 ft. wide. Evidently, in normal times, the perennial channel was only about 60-70 ft.

wide and 7 ft. deep. The space between the eastern bank of the channel and the tower on which roads were built normally served as a passage through the main gate. There are two funnel-shaped pits, 6 ft. 2 ins. deep and 8 ft. wide at the top, on the two sides of the channel at the terminations of the roads. These two and the passage through the rampart and the tower are in the same alignment. From their situation and alignment they appear to have held posts that supported an over-bridge across the channel.

In times of emergency the entire moat area could be flooded, the reservoir to the south of the road between the channel and the tower inundating the road and joining the main channel to its north. This step would have been taken obviously in a very grave situation, when the tower to the east of the moat also could not be held and the defenders of the city would have been forced to decide to cut off all communications and seal the impregnable fortress by a 480 ft. wide moat (now 28 ft. deep).

The banks of the moat were revetted with walls built in batter. Two such walls, the earlier belonging to the first period of the moat, 3 ft. 4 ins. wide and 3 brick-courses thick, and the other, now represented by a debris, belonging to Road 5 (now washed), have been laid bare.

The earliest moat (*SP.*II. 5), coevel with the Subsidiary Rampart 1 and Road 1, was cut through the natural soil, and its channel, at the base of the rampart, was 60 ft. wide.

The banks were overlaid by a deposit of about 2 ft. 10 ins. in thickness when the moat was re-excavated (*SP.* III. 10). The accumulations subsequent to Moat 1 are pre-N. B. P. Ware and have yielded red ware having types like dish-on-stand and others similar to those from Navdatoli, Painted Grey and Black-and-Red Ware.

The thickness of the deposit over the level of Moat 3 is 1 ft. 10 ins. There is evidence of re-excavation and widening of the moat (*SP.* III. 11). The re-excavation of the moat coincided with major changes in the building of the defences and there is evidence that the entire area had to be packed in order to raise the level (*SP.* III. 13). Silting of different periods is available only in areas near the roads.

## *Roads* (Pl. 25)

### *Road* 1 (*SP.* II. 5)

On the two sides of the channel between Subsidiary Rampart 1 and the moat and the eastern bank of the moat and the watch-tower, Road 1, 10 ft. wide and about 4 to 6 ins. in depth, coeval with the subsidiary rampart, was laid by cutting through the natural soil. The road was made of small brickbats, gritty material, lime concretions, sherds and clay, heavily pounded. The pottery is pre-N. B. P. Ware.

### *Road* 2 (*SP.* II. 7)

Rood 2, 14 ft. wide and 5 ins. in depth, was laid on flood deposits, 2 ft. thick, on Road I. The material used was similar to that in Road 1.

### *Road* 3 (*SP.* III. 10)

Road 3, 10 ft. wide and 4 ins. in depth, was laid on an accumulation of 10 ins. in thickness on Road 2. The packing of the road has yielded N. B. P. Ware. The evidence for the road of this period is available only in the area between the eastern bank of the channel and the tower on the eastern side of the moat and not at the foot of the rampart, as the Subsidiary Rampart 2 was built in this area over Roads 1 and 2.

### *Road* 4 (*SP.* III. 11)

Road 4, 11 ft. wide and 6 ins. in depth, was built on an accumulation, 8 ins. in thickness and full of N. B. P. Ware, over Road 3.

### *Road* 5 (*SP.* III. 13)

Road 4 was overlaid by a packing of thoroughly rammed mud, blackish in colour and 7 ft. in thickness, which provided the bank of the road of the subsequent period, now almost completely washed out of existence. This packing for the raising of the level of the road became necessary because it was in this period that the guard-rooms were built at the top of the rampart and provided the nerve-centre of the defences. In order to facilitate commu-

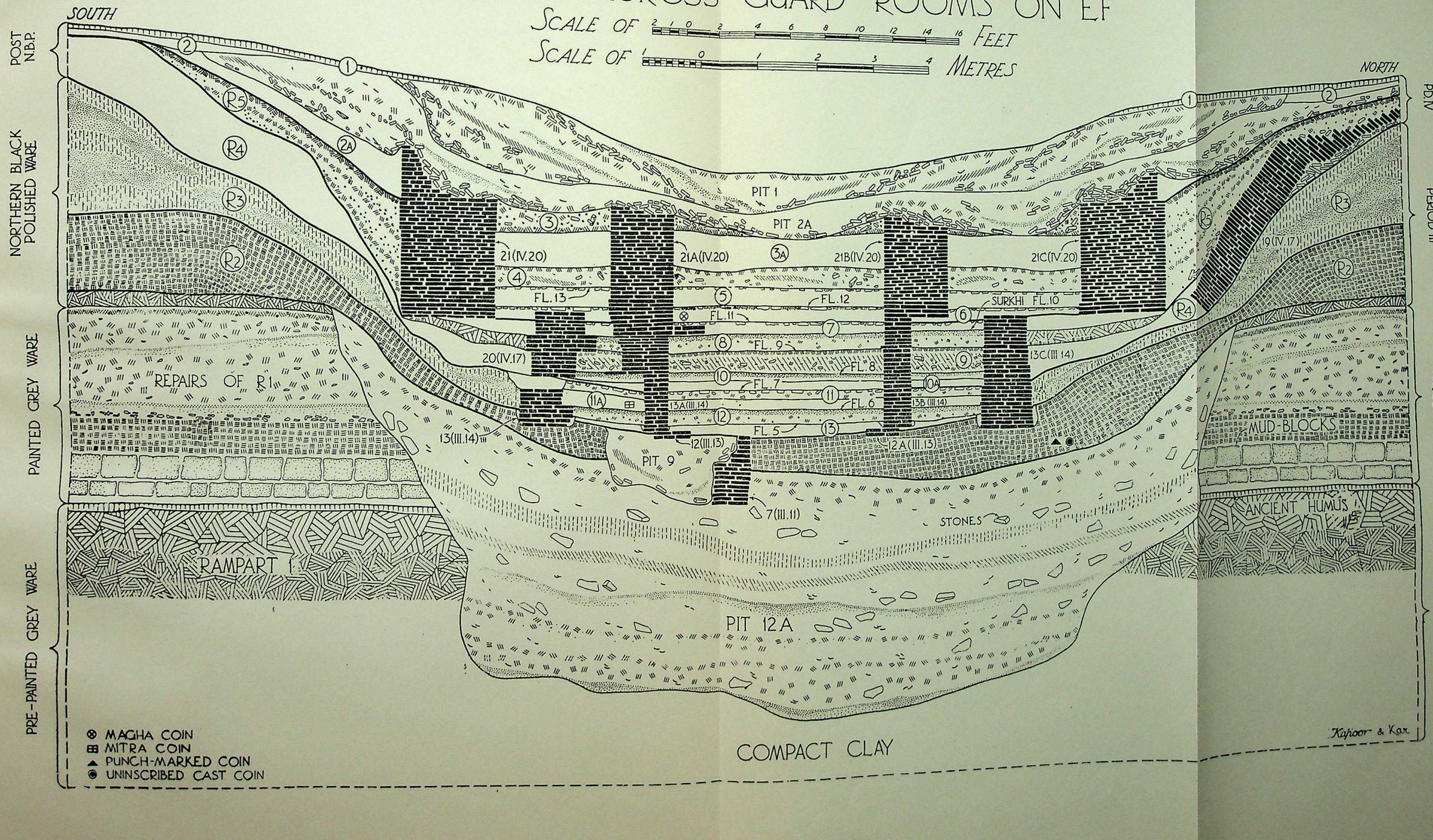
FIG. 4

# KAUŚĀMBI 1957-59

## SECTION ACROSS GUARD-ROOMS ON E F

SCALE OF 2 1 0 2 4 6 8 10 12 14 16 FEET

SCALE OF 1 0 1 2 3 4 METRES



nication with these guard-rooms, situated at the top, at a height of about 35 ft. from the surface of the toe of the rampart of the preceding period, the raising of the road-level became necessary.

## NEW LIGHT ON FORTIFICATION

The excavations have, thus, thrown valuable light on early fortification and its modifications in the successive periods necessitated by changing ideas of defence. This impressive fortification came into being in *SP.* I. 3. Its similarity with the Harappan defences is obvious. A rampart of mud with sloping sides revetted with a burnt brick wall, battered back to about 30° to 40°, of which the courses are laid in the so-called English bond, leaving footings in successive courses, reinforced by bastions and towers, square in plan, are elements of construction strongly reminiscent of the Harappan citadel. The defences, built on this model, continued from *SP.* I. 3 to *SP.* III. 12, during which periods they also made use of a curved entrance, enclosing an underground passage built on corbelled arch. In *SP.* II. 5 the concept of defence was revolutionised by the construction of a moat round the ramparts, a feature not yet recorded from any Harappan city. Period III. 13 is the next land-mark in the evolution of the defence system: the rampart and the revetments were strengthened by a series of guard-rooms and towers designed to ward off attack on the revetments and the passage enclosed by them, which, by the erection of two flank-walls connecting the guard-rooms with the toe of the rampart, functioned almost like a tunnel running across the defences. By *SP.* III. 15 the concept of revetments had faded out and vanished completely by *SP.* IV. 17. From *SP.* IV. 17 to *SP.* IV. 24, when the defences finally came to an end, the principle of a rampart with revetment was completely eleminated and the guard-rooms flanked by towers and connected with the base of the rampart with long parallel walls provided the key to the entire defence system. The main gates were screened by mud-bunds serving as curtains and towers to defend the roads through the gateways. The period in which the idea of the construction of screens in front of the main gates was introduced has yet to be ascertained by further excavations.

### *The Evolution and History of Bricks*

In *SP.* I. 1 and I. 2 only brick-bats have been found which were evidently taken out of earlier sturctures, not yet excavated, and reused in Floor I (*SP.* I. 1) and Wall I (*SP.* I. 2). The high percentage of the complete bricks used in the

succeeding periods, as shown below, can very well be regarded as the index of major building activities in the respective periods :—

| | | | | |
|---|---|---|---|---|
| *SP.* | I. | 3 | — | 88% |
| *SP.* | II. | 5 | — | 92% |
| *SP.* | II. | 8 | — | 80% |
| *SP.* | III. | 10 | — | 87% |
| *SP.* | III. | 11 | — | 79% |
| *SP.* | III. | 12 | — | 82% |
| *SP.* | III. | 13 | — | 85% |
| *SP.* | III. | 15 | — | 84% |
| *SP.* | IV. | 17 | — | 80% |

The complete bricks of *SP.* I. 3 measure 20.5 ins. (maximum), 18.5 ins. (minimum) and 19.5 ins. (average) in length; 13 ins. (maximum), 11.5 ins. (minimum—rare) and 12.5 ins. (average) in breadth; and 3.25 ins. (maximum), 2.5 ins. (minimum—rare) and 2.75 ins. (average) in thickness. About 60% of them measure $19.5 \times 13 \times 2.75$ ins. which may be treated as the standard size of bricks in this period. Bricks of another size measuring $20.25 \times 13.5 \times 3.25$ ins. have also been found but their small percentage seems to indicate that they represent probably an earlier type, not very popular during this period.

The length, breadth and thickness of the complete bricks of *SP.* II. 5 respectively are 20.25 ins. (maximum), 17.5 ins. (minimum), 19.25 ins. (average); 13.5 ins. (maximum), 12 ins. (minimum), 12.5 ins. (average); and 3.25 ins. (maximum), 2.5 ins. (minimum), 2.75 ins. (average). The standard type of this period is the same as that of *SP.* I.3, and is available to the extent of about 60%. About 10% of the bricks, unknown in the preceding periods, are of smaller size measuring $18 \times 12 \times 2.5$ ins.

The dimensions of the complete bricks of *SP.* II. 8 are 20 ins. (maximum), 18 ins. (minimum), 18.75 ins. (average); 13 ins. (maximum), 11.5 ins. (minimum), 12.25 ins. (average); and 3 ins. (maximum), 2.25 ins. (minimum), 2.5 ins. (average). The standard type of earlier periods continues in this period also to the extent of 40%, but equally prominent is the type ($18 \times 12 \times 2.5$ ins.) introduced in *SP.* II. 5, which now accounts for about 40%.

The complete bricks of *SP.* III. 10 measure 20 ins. (maximum), 17·5 ins.

(minimum) and 18 ins. (average) in length; 13 ins. (maximum), 11 ins. (minimum) and 12 ins. (average) in breadth; and 3.25 ins. (maximum), 2.25 ins. (minimum) and 2.5 ins. (average) in thickness. The type measuring 18 × 12 × 2.5 ins., available to the extent of 66%, becomes the arch-type in this period. About 20% of the bricks show a variant of the earlier type measuring, approximately, 19.5 × 12.5 × 2.75 ins. *SP.* III. 11 also reveals the same picture.

The available data in respect of *SP.* III. 13 shows that the sizes of bricks varied according to the purpose of the structure in which they were used. Thus the drain of this period has larger size bricks measuring 19.5 × 12.5 × 2. 75 ins. whereas in other structures comparatively small bricks have been used. The standard size of the bricks of this period is 17.5 × 12 × 2. 75 ins., which is about 40%.

In *SP.* III. 15 the standard type is the same as *SP.* III. 13 but the number here rises to 70%. A new type of brick measuring 16.5 × 11 × 2.5 ins. was introduced and used to the extent of 20% in this period.

Henceforward the history of the brick types mainly centres round these two types of *SP.* III.15 and shows a gradual reduction in the percentage of the former and a corresponding increase in that of the latter or the new type. Thus in *SP.* III. 16, III. 17, IV. 19 and IV. 20, the percentage of the former is gradually reduced to 66%, 60%, 32% and 25% respectively, till at last in *SP.* IV. 24, it becomes negligible. On the other hand, the percentage of the latter type registers a continuous rise—34% (*SP.* III. 16), 40%, (SP. III. 17), 55% (*SP.* IV. 19), 70% (*SP.* IV. 20) and 77% (*SP.* IV. 24). A new type of brick measuring 15/14 ins. × 7 ins. × 2.5 ins. was also introduced in *SP.* IV. 24.

It is important to note that after *SP.* IV. 17 when the system of strengthening the ramparts with revetments was abandoned, new structures become very few in number and the percentage of complete bricks continues to be reduced till at last in *SP.* IV. 25 only brick-bats were used. As such, the ground for arriving at any definite conclusions in respect of the bricks of these periods is not adequate and this is all the more so in view of the fact that the bricks of the early periods appear to have been often reused.

The hall-mark of the evolution of bricks over a period of more than a thousand years in the history of Kauśāmbī, is, as the foregoing observations amply reveal, the gradual dimunition in the size of bricks from 20.5 ins. to

14 ins. in length, from 13.5 ins. to 11 ins. in breadth and from 3.25 ins. to 2.25 ins. in thickness. However, the abrupt reduction in breadth in the new type (15/14 ins. ×7 ins. ×2.5 ins.) introduced in *SP.* IV. 24 shows some external influence and sounds a discordant note in the otherwise gradually evolving sequence.

## CHAPTER FOUR

## TOOLS AND WEAPONS

The Excavations yielded 1115 iron objects out of which about 678 were in a tolerable state of preservation. They comprise about 370 arrow-heads, spears and javelins numbering 58 and the miscellaneous lot of 250 including axes, adzes, knives, razors, nails, chisels, sickles etc. The rest of the pieces were shapeless.

It is noteworthy that small fragments and shapeless bits of iron were discovered as early as *SP.* I. 3. Objects of distinctive shapes, however, occurred from *SP.* II. 5 and continued to be used throughout Cultural Period II, but became much more numerous with the beginning of Cultural Period III or the period of the N. B. P. Ware. Scarcity of iron objects with distinctive shapes in Period I may be partly due to the extremely corrosive nature of the material. The occurrence of iron throughout the Painted Grey Ware period has been noted at Ālamgīrpura[1], (District Meerut). Lumps of iron, ore and slags, are also reported from the uppermost levels of Period II (P. G. Ware) at Hastināpura.[2] Recent excavations in the Gangetic Valley thus attest the knowledge of iron much before the appearance of the Northern Black Polished Ware.

### *Arrow-heads—Iron*

The iron arrow-heads belong to eleven different types, viz. (A) with rhombic cross-section; (B) with square cross-section; (C) with rectangular cross-section having two sub-types; (D) with a conical blade and circular cross-section; (E) socketed ones with two sub-types; (F) having a knife-blade and lozenge cross-section; (G) with leaf-shaped blade and lozenge cross-section; (H) with a triangular cross-section; (I) double-tanged having eight sub-types; (J) three-bladed and (K) with barbed blades having four sub-types. Out of the total

1. I. A., 1958-59, p. 54.
2. A. I., Nos. 10 and 11, 1954-55, p. 13.

number of 370 well preserved arrow-heads, those of the first four types, A, B, C and D, are much more numerous, each represented by 85, 84, 76 and 38 specimens respectively. The next four types, E, F, G and H, though not so numerous, share with the first four a considerable antiquity and prevalence over a wide period of time. Their antiquity, frequent occurrence and the capacity for survival are proofs that they were the product of local effort and had strong and durable roots in the soil.

These eight types, viz. (A) to (H), occur throughout Periods III (N. B. P. Ware) and IV and continue virtually upto the end of the site. Of types (A) and (B), arrow-heads with shorter blades were used earlier and those with longer blades appeared later. On the other hand, (C 2), a variety of type (C), is earlier than (C 1) its shorter variety.

With their highly specialised character the arrow-heads of types (I), (J) and (K) present a sharp contrast to the first eight types noted earlier. Though represented by only 16, 11 and 10 pieces respectively, these three types, unlike the first eight types, have variety of forms and are of sporadic occurrence. The sixteen specimens of type (J), comprising eight sub-types, occur only in one period, namely, at the end of *SP.* III. 14. A single specimen of type (J) belongs to *SP.* III. 14 and the rest appear in structural periods associated with Rampart 4. Similarly, of the four sub-types of (K), (K 1) appears in *SP.* IV. 19 together with type (J) and the other three sub-types, (K 2), (K 3) and (K 4) are confined to the extensive destructions after *SP.* IV. 24.

The intrusive character of Types (I), (J) and (K) is also borne out by the complete absence of their prototypes not only at Kauśāmbī but also in the entire Gangetic Valley. The multiplicity of their sub-types is also a clear proof of a long history antedating their sudden appearance in the Gangetic Valley. It is highly significant that these types appear here as carriers of invasion, death and destruction. Their history has been well documented at Taxila.[1] Evidently, their distinctive nature, their close analogy with th ose from Taxila and sudden appearance at Kauśāmbī, clearly indicate that they were introduced here by the invaders from north-western regions. The Bactrian-Greeks, the Śaka-Parthians and the Hūṇas, to whom Marshall ascribes these three types, are also indicated by the evidence of stratigraphy at Kauśāmbī.

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1. Marshall, Taxila. II, pp. 547 ff.

*Arrow-heads—Ivory, Bone etc.*

The arrow-heads made of bone, ivory and horn reveal a history similar to that of iron arrow-heads and appear along side with them from *SP.* II. 5 to *SP.* IV. 25 but their main concentration is in Period III (the Northern Black Polished Ware culture). They belong to five types, viz. (A) with long point and circular cross-section, (B) socketed, (C) with double grooves, (D) bud-shaped and (E) with irregular rectangular cross-section. Types (A) and (B) are the earliest and make their first appearance in *SP.* II. 5; (C) in II. 8 and (D) and (E) in III. 9. In many cases the tang and the point are clearly emphasized. These arrow-heads were intended for shafts made of reeds, cane etc. In the case of type (C), the grooves were used for fastening the arrow-head to the shaft by strings. The points in certain cases show black stains either due to poison or blood.

*Arrow-heads in Literature*

Arrow-heads of bone (deer horn) and iron (copper ?) are mentioned in the R. V.[1] The words *bāṇa*,[2] *bunda*,[3] *śara*,[4] *śaravyā*, *śāri*[5] and *śāyaka*[6] are of frequent occurrence in the *Saṁhitās*. The different names may have signified different types or kinds of arrows. Kauṭilya,[7] however, mentions five kinds of arrow-heads, viz. *veṇu*, *śara*, *śalākā*, *daṇḍāsana*, and *nārāca*, made of iron, bone or wood. According to the A. V.[8] and A. B.,[9] an arrow consisted of a point, a socket, a shaft and feathers. The common use and long antiquity of feathers is also indicated by the R. V.[10] which mentions arrow-heads with and without feathers. Poisoning of the tip of the arrow-head seems to have been a common practice.[11] The A. V [12] prescribes charms to make the poison ineffective and also to serve as antidote against it.

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1. आलाक्ता या रुरुशीर्ष्णयो यस्या अयो मुखं । R. V. VI 75. 14-17.
2. R. V. VI. 75. 17.
3. R. V. VIII. 77. 6.
4. R. V. I. 119. 10; X. 178. 3; A. V. I. 3. 1; VIII. 8. 4.
5. R. V. I. 112. 16.
6. R. V. II. 33. 10.
7. Shamasastry, Arthaśāstra of Kauṭilya, p. 102.
8. A. V. IV. 6. 5.
9. A. B. VIII. 1. 25.
10. R. V. VI. 75. 17.
11. R. V. VI. 75. 15. Sāyaṇa explains the term *ālāktā* used in this connection as *viṣeṇāktā*, (R. V. ed. Maxmüller, vol. II. p. 891). Also A. V. IV. 6. 5.
12. A. V. IV. 6.

The discovery in Periods II and III of iron and bone arrow-heads of different types confirms their antiquity and wide use as evidenced by the Vedic literature.

### *Spears and Javelins*

Of the weapons of this category, only 58 pieces were recovered in good condition. They comprise five main types, viz. (A) leaf-shaped with a small blade and lozenge cross-section; (B) with a large flattened leaf-shaped blade and lozenge cross-section; (C) with a solid point, plain tang and square cross-section; (D) with a socketed head and circular cross-section, and (E) with a socket and rectangular cross-section. Type (A) appears to be the earliest, some well preserved specimens being available from *SP.* II. 7. All the types occur in Period III (N. B. P. Ware).

### *Miscellaneous Iron Objects*

Miscellaneous iron objects include axes, adzes, knives, chisels, sickles, nails, iron-rings etc. Most of them evidently were tools used by agriculturists, carpenters and other craftsmen.

Some representative specimens are described below :

#### *Arrow-heads—Ivory and Bone*

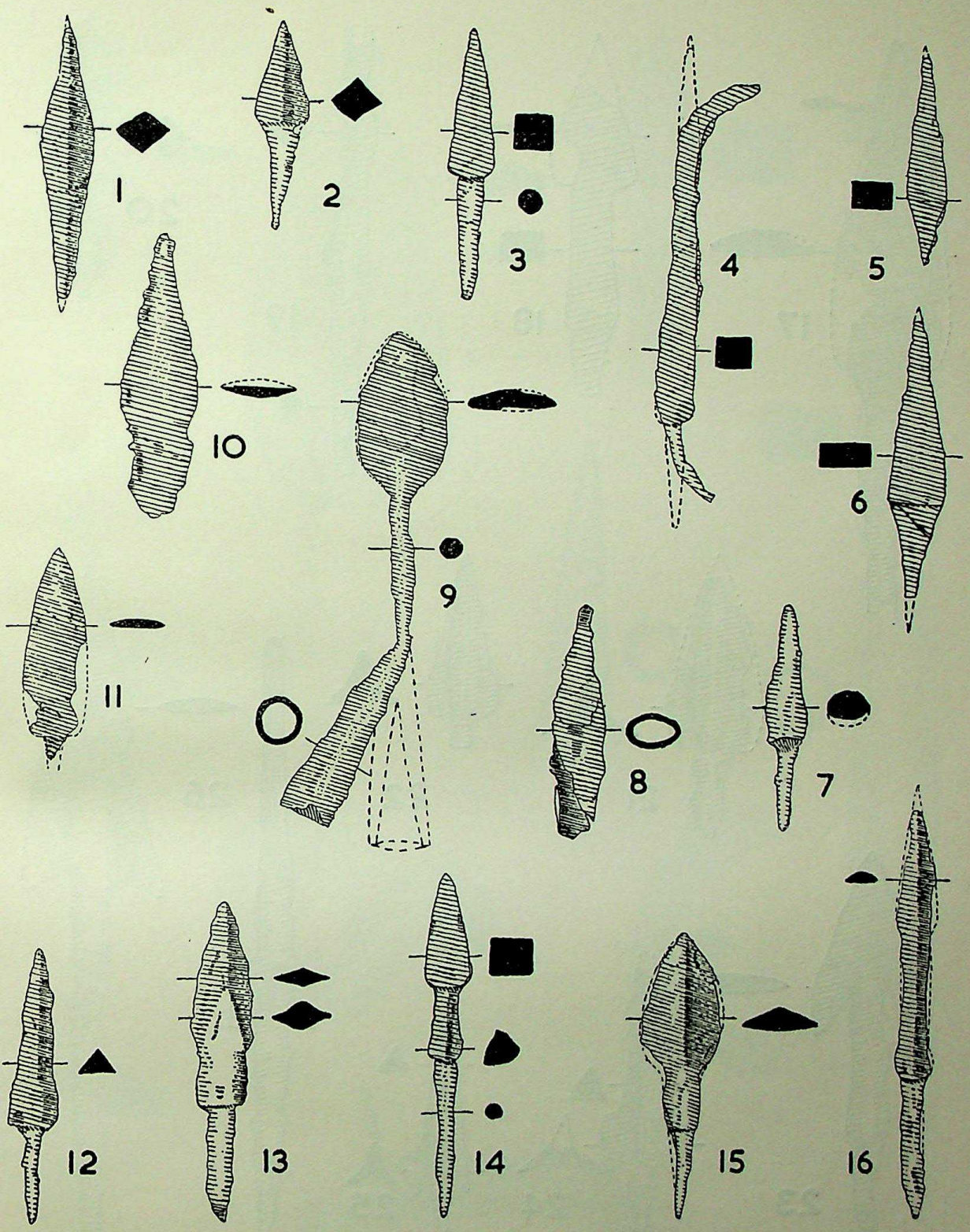
(Pl. 39)

*Type* A—Long point, circular cross-section

1. (KSB XIII. I/299-58). II. 5.
   Arrow-head, horn, long fine point, single-tanged, circular cross-section. Length 7 cms.

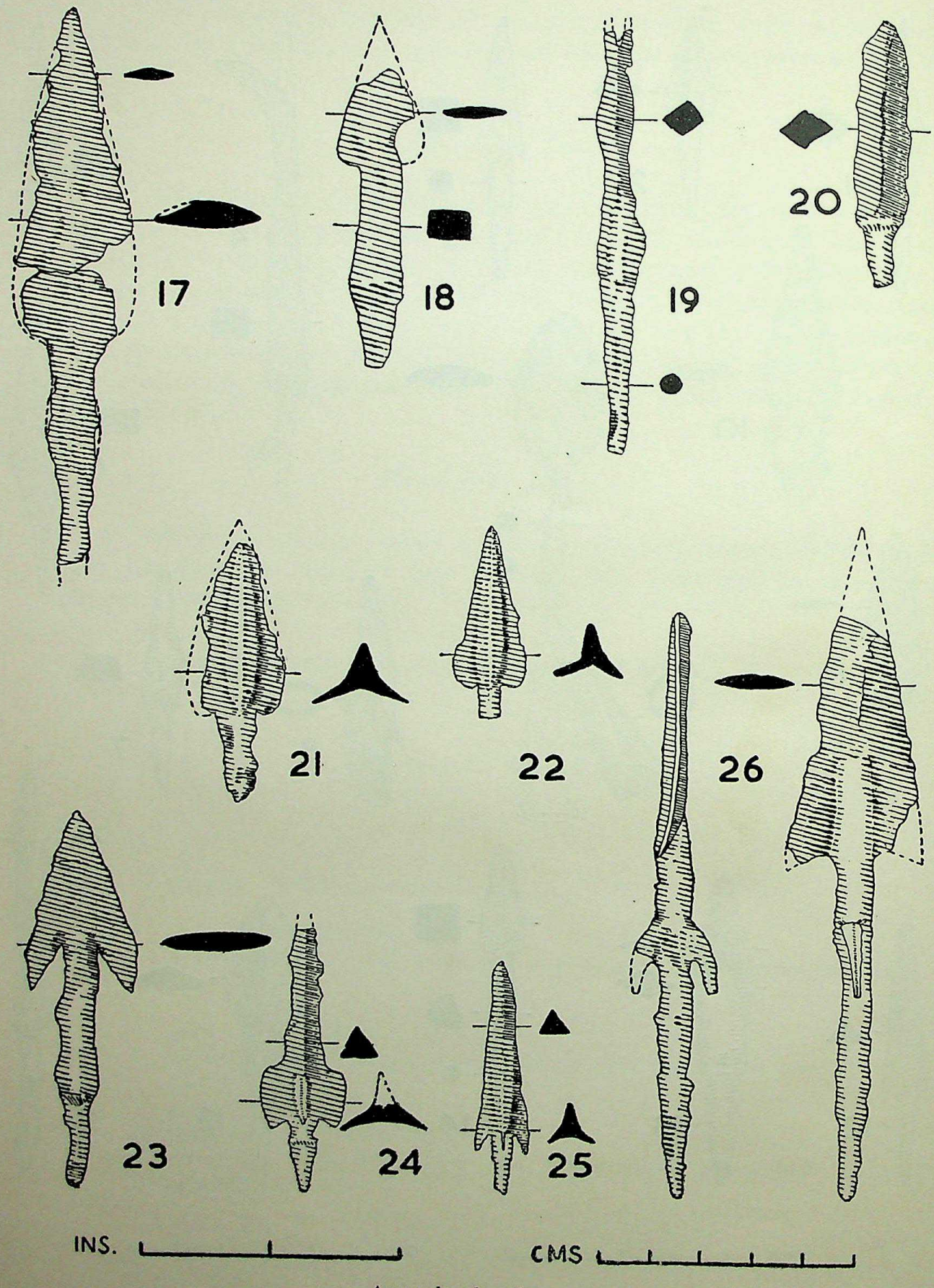
2. (KSB XIII. I/184-58). III. 14.
   Arrow-head, ivory, long fine point, single-tanged, circular cross-section. Length 8.2 cms.

3. (KSB XIII. I/60-58). III. 14.
   Arrow-head, bone, long broken point, single-tanged, semi-circular cross-section. Length 9.6 cms.

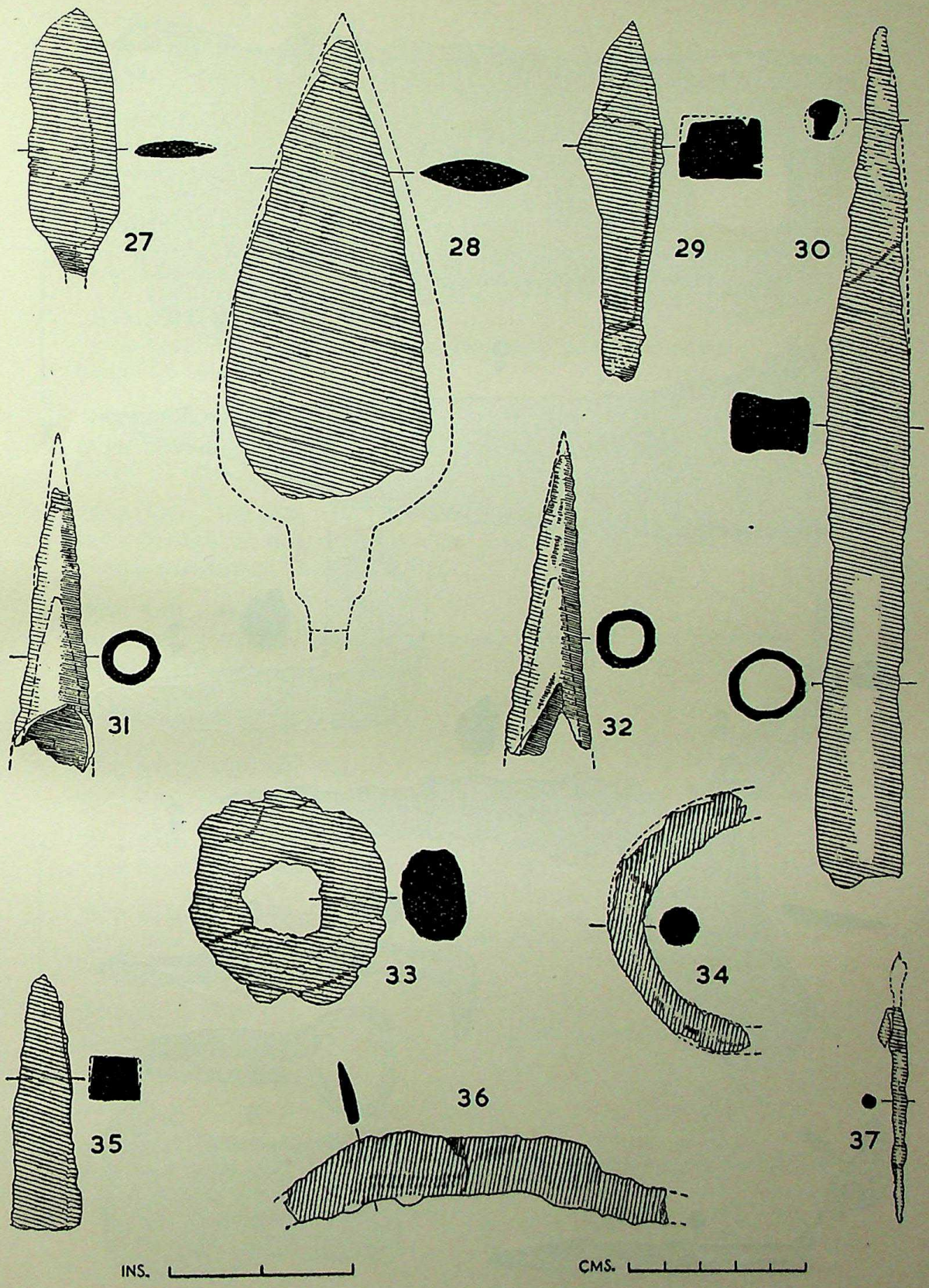



Arrow-heads : Iron

FIG. 6

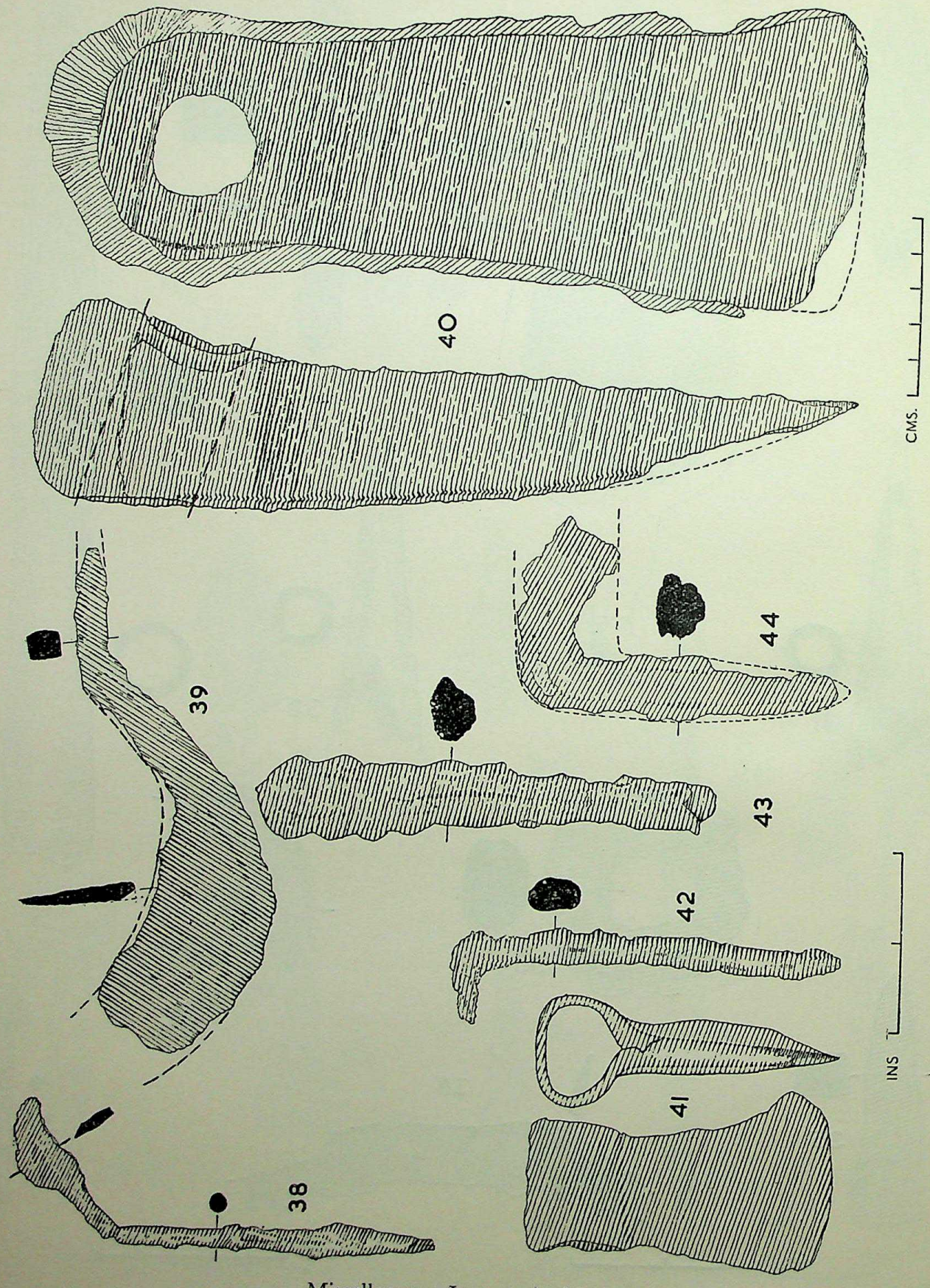



Arrow-heads : Iron




Spears, javelins and miscellaneous iron antiquities

FIG. 8




Miscellaneous Iron antiquities

4. (KSB XIII. I/149-58). III. 14.
Arrow-head, ivory, long fine point, single-tanged, irregular circular cross-section. Length 7.2 cms.

5. (KSB XIII. I/156-58). III. 16.
Arrow-head, ivory, long fine point, single-tanged, circular cross-section. Length 6 cms.

6. (KSB XIII. I/197-58). III. 16 (?).
Arrow-head, ivory, long fine black-tipped point, single-tanged, circular cross-section. Length 8.1 cms.

7. (KSB XIII. I/308-58). III. 16.
Arrow-head, ivory (?), fine point, single-tanged, pentagonal section. Length 5.8 cms.

8. (KSB XIII. I/251-58). IV. 17.
Arrow-head, ivory (?), long fine point, well-defined tang, circular cross-section. Length 7.6 cms.

9. (KSB XIII. I/254-58). IV. 19.
Arrow-head, ivory, long fine black-tipped point, small single-tanged (black-tipped); circular cross-section. Length 7.5 cms.

10. (KSB XIII. I/33-58). IV. 24.
Arrow-head, ivory, fine point, single-tanged, irregular circular cross-section. Length 4.9 cms.

*Type B—Socketed*

11. (KSB XIII. I/285-58). III. 9.
Arrow-head, ivory, socketed, fine point, elliptical cross-section. Length 5 cms.

12. (KSB XIII. I/282-58). III. 9.
Arrow-head, ivory, socketed, fine point, circular cross-section. Length 4.9 cms.

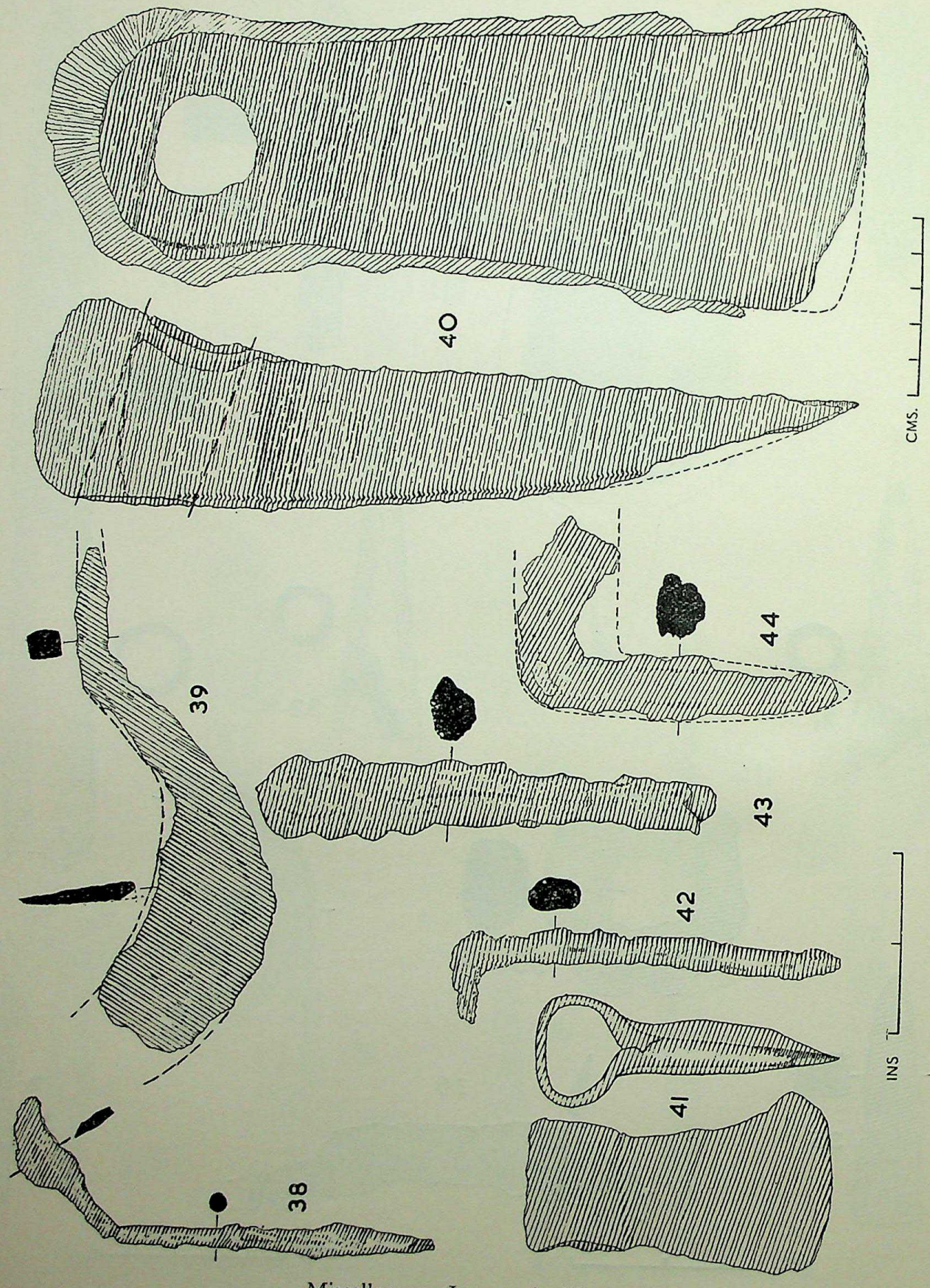
13. (KSB XIII. I/255-58). III. 16.
Arrow-head, ivory, socketed, very long fine point, circular cross-section. Length 8.3 cms.

14. (KSB XIII. I/252-58). IV. 24.
Arrow-head, ivory, socketed, long fine point, circular cross-section. Length 7.6 cms.

*Type C—Double-Grooved*

15. (KSB XIII. I/233-58). II. 8.
Arrow-head, ivory, long fine point, with two grooves, single-tanged, circular cross-section. Length 8.4 cms.

FIG. 8




Miscellaneous Iron antiquities

4. (KSB XIII. I/149-58). III. 14.
Arrow-head, ivory, long fine point, single-tanged, irregular circular cross-section. Length 7.2 cms.

5. (KSB XIII. I/156-58). III. 16.
Arrow-head, ivory, long fine point, single-tanged, circular cross-section. Length 6 cms.

6. (KSB XIII. I/197-58). III. 16 (?).
Arrow-head, ivory, long fine black-tipped point, single-tanged, circular cross-section. Length 8.1 cms.

7. (KSB XIII. I/308-58). III. 16.
Arrow-head, ivory (?), fine point, single-tanged, pentagonal section. Length 5.8 cms.

8. (KSB XIII. I/251-58). IV. 17.
Arrow-head, ivory (?), long fine point, well-defined tang, circular cross-section. Length 7.6 cms.

9. (KSB XIII. I/254-58). IV. 19.
Arrow-head, ivory, long fine black-tipped point, small single-tanged (black-tipped); circular cross-section. Length 7.5 cms.

10. (KSB XIII. I/33-58). IV. 24.
Arrow-head, ivory, fine point, single-tanged, irregular circular cross-section. Length 4.9 cms.

*Type B—Socketed*

11. (KSB XIII. I/285-58). III. 9.
Arrow-head, ivory, socketed, fine point, elliptical cross-section. Length 5 cms.

12. (KSB XIII. I/282-58). III. 9.
Arrow-head, ivory, socketed, fine point, circular cross-section. Length 4.9 cms.

13. (KSB XIII. I/255-58). III. 16.
Arrow-head, ivory, socketed, very long fine point, circular cross-section. Length 8.3 cms.

14. (KSB XIII. I/252-58). IV. 24.
Arrow-head, ivory, socketed, long fine point, circular cross-section. Length 7.6 cms.

*Type C—Double-Grooved*

15. (KSB XIII. I/233-58). II. 8.
Arrow-head, ivory, long fine point, with two grooves, single-tanged, circular cross-section. Length 8.4 cms.

16. (KSB XIII. I/323-58). III. 11.
Arrow-head, ivory, long fine point with two grooves, socketed, elliptical cross-section. Length 7.5 cms.

*Type D—Bud-Shaped*

17. (KSB XIII. I/224-58). III. 10.
Arrow-head, ivory, fine small bud-shaped point, single-tanged, flattened cross-section. Length 5 cms.

18. (KSB XIII. I/258-58). III. 11.
Arrow-head, ivory, fine bud-shaped point, single-tanged, elliptical cross-section. Length 5.2 cms.

19. (KSB XIII. I/316-58). III. 16.
Arrow-head, bone, fine short bud-shaped point, single-tanged, elliptical cross-section. Length 3.8 cms.

*Type E—Irregular Rectangular Cross-section.*

20. (KSB XIII. I/63-58). III. 14.
Arrow-head, ivory (?), long point, small single-tanged, irregular rectangular cross-section. Length 7.5 cms.

21. (KSB XIII. I/56-58). III. 14.
Arrow-head, bone, fine point, small single-tanged, irregular cross-section. Length 5.9 cms.

22. (KSB XIII. I/191-58). III. 14.
Arrow-head, bone, long point, long single-tanged, semi-circular cross-section. Length 7.7 cms.

23. (KSB XIII. I/273-58). IV. 19.
Arrow-head, ivory (?), small point, single-tanged, irregular cross-section. Length 4.1 cms.

24. (KSB XIII. I/247-58). IV. 19.
Arrow-head, ivory, long fine point, single-tanged, semi-circular cross-section. Length 6.2 cms.

25. (KSB XIII. I/247-59). IV. 24.
Arrow-head, bone, long point single-tanged, flattened cross-section. Length 5.4 cms.

*Arrow-heads—Iron*

(Pl. 40 and 41; Fig. 5 and 6)

*Rhombic Cross-section*

*Type A* 1.

1. (KSB XIII. C/109-59). IV. 19.
Arrow-head, triangle-shaped long blade, rhombic cross-section, single-tanged.
Length 5.8 cms.

*Type A* 2.

2. (KSB XIII. C/475-58). III. 9.
Arrow-head, triangle-shaped small blade, rhombic cross-section, single-tanged.
Length 4.5 cms.

*Square Cross-section*

*Type B* 1.

3. (KSB XIII. C/103-58). IV. 23.
Arrow-head, short blade, square cross-section, plain tang.
Length 5.8 cms.

*Type B* 2.

4. (KSB XIII. C/82-58). IV. 23.
Arrow-head, long pointed blade, square cross-section, plain short tang.
Length 10.4 cms. Cf. Marshall, Taxila III. Pl. 165, Nos. 80, 81.

*Rectangular Cross-section*

*Type C* 1.

5. (KSB XIII. C/23-59). IV. 24.
Arrow-head, triangle-shaped blade, rectangular cross-section, single-tanged.
Length 4.6 cms.

*Type C* 2.

6. (KSB XIII. C/30-59). IV. 23.
Arrow-head, triangle-shaped long blade, rectangular cross-section, single-tanged.
Length 6 cms.

*Circular Cross-section*

*Type D.*

7. (KSB XIII. C/474-58). IV. 24.
Arrow-head, conical blade, circular cross-section, plain single tang. Length 4.9 cms.
Cf. Marshall, Taxila III. Pl. 165, No. 87.

*Socketed Arrow-heads*

*Type E* 1.

8. (KSB XIII. C/907-58). III. 14.
Arrow-head, conical blade, socketed. Length 5.1 cms.

*Type E* 2.

9. (KSB XIII. C/886-58). III. 16 (?).
Arrow-head, leaf-shaped blade, lozenge cross-section, long socket. Length 11.1 cms.
Cf. A variant of this type, from NVT, Excavations at Maheswara and Navdatoli (1952-53) Fig. 110, N. 2054. Also A.I. Nos. 10, 11 (1954-55), Hastināpura, Fig. 31,19.

*Arrow-heads—Knife-blade*

*Type F.*

10. (KSB XIII. C/488-58). IV. 19.
Arrow-head, knife-blade, lozenge cross-section. Length 6.1 cms.

*Arrow-heads—Leaf-shaped blade*

*Type G.*

11. (KSB XIII. C/267-58). IV. 19.
Arrow-head, leaf-shaped blade, lozenge cross-section, plain tang.
Length 4.5 cms.

*Triangular Cross-section*

*Type H.*

12. (KSB XIII. C/425-58). III. 14.
Arrow-head, triangular cross- section, plain single tang. Length 5·8 cms.

*Double-tanged Arrow-heads*

*Type I* 1.

13. (KSB XIII. C/58-58). III. 14.
Arrow-head, leaf-shaped blade, rhombic cross-section, prominent mid-rib running

from shank to blade-point, double-tanged. Length 6.8 cms.
Cf. Marshall, Taxila III. Pl. 165, No. 84.

*Type I* 2.

14. (KSB XIII. C/210-58). III. 14.
Arrow-head, leaf-shaped blade, square cross-section, long shank, double-tanged. Length 7.4 cms.

*Type I* 3.

15. (KSB XIII. C/821-58). IV. 24.
Arrow-head, leaf-shaped blade, triangular cross-section, double-tanged. Length 6.2 cms.

*Type I* 4.

16. (KSB XIII. C/129-59). III. 14 (?).
Arrow-head, narrowing leaf-shaped blade, lozenge cross-section, long shank, double-tanged. Length 8.9 cms.
Cf. Marshall, Taxila III. Pl. 165, No. 79.

*Type I* 5.

17. (KSB XIII. C/12-58). III. 14.
Arrow-head, knife blade, lozenge cross-section, double-tanged. Length 10.9 cms.
Cf. Marshall, Taxila III. Pl.165, No. 77 (Marshall describes the specimen as knife-blade head).

*Type I* 6.

18. (KSB XIII. C/55-58). IV. 24.
Arrow-head, triangular leaf-shaped blade, lozenge cross-section, long shank, double-tanged. Length 5.8 cms.
Cf. Marshall, Taxila III. Pl. 165, Nos. 73,74.

*Type I* 7.

19. (KSB XIII. C/562-58). III. 14.
Arrow-head, forked-point head, rhombic cross-section, long shank, double-tanged. Length 8.2 cms.

*Type I* 8.

20. (KSB XIII. C/196-58). IV. 25.
Arrow-head, narrow leaf-shaped blade, rhombic cross-section, short thickened shank, double-tanged. Length 5.2 cms.

*Three-bladed Arrow-heads*

*Type J.*

21. (KSB XIII. C/424-58). IV. 17.
Arrow-head, three-bladed point, plain tang. Length 5.1 cms.

22. (KSB XIII. C/126-59). IV. 17.
Arrow-head, three-bladed point, plain tang. Length 3.7 cms.
Cf. Marshall, Taxila III. Pl. 165, No. 88. Also A. I., No. 4 (1948), Taxila, Pl. XIX. 23.

*Barbed Arrow-heads*

*Type K* 1.

23. (KSB XIII. C/504-58). IV. 19.
Arrow-head, prominently barbed triangular blade, lozenge cross-section, long shank, double-tanged (?). Length 7.5 cms.
Cf. Marshall, Taxila III. Pl. 165, No. 74 (barbing is more prominent here than in the Taxila specimen).

*Type K* 2.

24. (KSB XIII. C/24-58). IV. 24.
Arrow-head, projected point flanked by three-barbed blades, triangular cross-section, short tang. Length 5.2 cms.

*Type K* 3.

25. (KSB XIII. C/170-59). IV. 24.
Arrow-head, prominently barbed three-bladed point, triangular cross-section, plain tang. Length 4.6 cms.
Cf. Marshall, Taxila III. Pl. 165, No. 88 (barbing is more prominent than in the Taxila specimen).

*Type K* 4.

26. (KSB XIII. C/388-58). IV. 24.
Arrow-head, barbed triangular blade with a mid-rib, lozenge cross-section, single-tang (two hooks on the tang). Length 11.5 cms.

*Spears and Javelins—Iron*

(Pl. 42. Fig. 7)

*Type A.*

27. (KSB XIII. C/59-59). III. 16.
Spear, leaf-shaped small blade, lozenge cross-section, short tang. Length 7.1 cms.
Cf. Marshall, Taxila III. Pl. 164, No. 68.

*Type B.*

28. (KSB XIII. C/139-59). III. 16.
Spear, large flattened leaf-shaped blade, lozenge cross-section. Length 12.3 cms.

*Type C.*

29. (KSB XIII. C/181-59). III. 16.
Spear, solid point, square cross-section, plain tang. Length 9.9 cms.

*Type D.*

30. (KSB XIII. C/23-58). III. 16.
Javelin, long point, rectangular cross-section, socketed. Length 23.6 cms.

*Type E.*

31. (KSB XIII. C/19-59). III. 16.
Javelin, socketed head, circular cross-section. Length 7.9 cms.
Cf. Marshall, Taxila III. Pl. 164, No. 71.

32. (KSB XIII. C/52-58). III. 16.
The same as above. Length 8.4 cms.

*Miscellaneous Objects—Iron*

(Pl. 43. Fig. 8)

33. (KSB XIII. C/155-59). III. 15.
Iron ring or socket (used in a cudgel to make the lower end heavier ?). Diam. 5.5 cms.
Cf. Ghosh, Taxila, A.I. No. 4 (1948) Pl. XIX. 22.

34. (KSB XIII. C/158-58). IV. 18.
Piece of a door-ring. Diam. 7.2 cms.

35. (KSB XIII. C/515-58). IV. 19.
Chisel, flat head, square cross-section. Length 6.9 cms.

36. (KSB XIII. C/25-58). IV. 24.
Knife, concave back, broken handle. Length 10.8 cms.
Cf. Ghosh, Taxila, A.I. No. 4 (1948), Pl. XIX. 25.

37. (KSB XIII. C/82-59). IV. 17.
Iron nail, curved head. Length 6 cms.

38. (KSB XIII. C/913-58). III. 15.
Iron model of a serpent. Length 12.1 cms.

39. (KSB XIII. C/702-58). IV. 19.
Sickle with tang, conical cross-section. Length 14.2 cms.

40. (KSB XIII. C/917-58). III. 10.
Adze, rounded top, thick sharply tapering blade, socketed. Length 21.5 cms.
Cf. Marshall, Taxila III. Pl. 166 No. 112.

41. (KSB XIII. C/110-59). IV. 19.
Axe, wide splay, socketed. Length 8.5 cms.
Cf. Marshall, Taxila III. Pl. 166 N0. 103.

42. (KSB XIII. C/889-58). IV. 18.
Nail. Length 10.9 cms.

43. (KSB XIII. C/805-58). III. 11.
Nail, roundish cross-section. Length 13 cms.

44. (KSB XIII. C/58-59). III. 16.
Door-hook (?), rectangular cross-section. Length 9.1 cms.

## CHAPTER FIVE

# POTTERY

The pottery is divisible into four classes, each presenting special features characteristic of its particular period.

### PERIOD I

*Class* 1—The pottery of Class 1 can be divided into two principal groups the first being further divisible into 1A and 1B.

Group 1 A—It is a wheel-made sturdy red ware of well levigated clay, uniform in composition, with fine organic material and husk sometimes used as degraissant and having a bright external red slip. The core is orange red, evidently the result of uniform firing at a high temperature. The important types of this group are bowls, dishes, bowl-cum-basins with ridges and prominent grooves, dish-on-stand and vessels of various shapes. In a few cases the rim and the outer side are painted with designs in black.

Group 1 B—Allied to the earlier one is this group of equally sturdy sherds of grey-to-buff ware with a black slip on smooth surface, occasionally painted also. Only a few types in this group are known but they are common also to group 1 A. Some of the sherds in both these sub-groups show clear use of the technique of paring before firing, which is very well illustrated on the stem of the dish-on-stand type.

Group 2—Another important group of this period consists of sherds, mostly shapeless and in very fragmentary condition, of a coarse black and Black-and-Red Ware. As compared to the first group, the clay is extremely coarse, with a larger quantity of rough organic material and very small pieces of stone used as degraissant, leaving a rugged texture full of small cavities. The pottery was made on slow wheel and fired in an inverted position at a low temperature. Some of the pieces have bright red or black slip. The pottery of this last group, though

contemporary with 1 A and 1 B, seems to represent a different ceramic tradition. Some of the sherds are painted in white on a black-slipped surface.

The types of this period have a wide distribution in the Vindhya plateau and Western India. Out of 85 types from *SP.* 1 to *SP.* 5 as many as the following 28 types from Kauśāmbī are similar to those from Navdatoli :—types 3, 5, 9, 16, 18, 24, 27, 30, 31, 32, 33, 34, 36, 37, 38, 40, 41, 42, 46, 47, 52, 59, 61, 73, 78, 79, 84 and 96. They occur at Navdatoli from NVT I to NVT IV, the largest concentration being in NVT II and NVT III. As many as 12 types of this period from Kauśāmbī have parallels from Rangpur, generally from RGP II B to III. Kauśāmbī has in common another 12 types with Lothal, Mehagāon, Somanātha, Moṭāmachiālā etc. It is significant that in Western India these types occur in a late Harappan or immediately post-Harappan context and their Harappan parentage is undoubted.

The distribution of the ware of these groups and their frequent occurrence in the Chalcolithic sites of the Deccan and Western India are significant pointers to their antiquity and origin. In the present state of our knowledge a proper definition is not yet possible but link with the Chalcolithic culture-complex and with Harappan traditions seems to be ultimately indicated. One fact about the ware of this period is particularly noteworthy; whereas the analogous types referred to above occur in a purely Chalcholithic context in Navdatoli and Western India, there is definite indication of the existence and use of iron in the later stages of this ware at Kauśāmbī.

## PERIOD II

*Class* 2—The pottery of this class is also subdivisible into two distinct groups. The first (2 A) is represented by the distinctive ware known as the Painted Grey Ware which constitutes a homogeneous group represented mainly by bowls and dishes with very thin section, of well levigated clay and with fine fabric. On the grey and sometimes black-slipped surface are painted designs consisting of simple horizontal bands specially on the rim or on the body. Besides, the patterns also comprise groups of vertical or slanting strokes on the body, loops, circles and circle of dots. In certain cases designs in deep chocolate or yellow are executed on brownish red surface. A comparison of these types and painting designs with those from typical Painted Grey Ware sites like Hastināpura and Rūpar and others in western U. P. and the Punjab, shows that Kauśāmbī represents a late stage in the history of this ware.

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The excavations reveal the continued existence of this ware in the early sub-periods of the N. B. P. Ware as well. The view of a gap between the end of the Painted Grey Ware and the beginnings of the N. B. P. Ware is no longer tenable. This is further confirmed by the continuance of many of the types of the Red Ware associated with the P. G. Ware in the period of the N. B. P. Ware.

Associated with the Painted Grey Ware is also a Black-and-Red Ware. Though produced by the method of inverted firing, it is very much superior to the Black-and-Red Ware of class I, in texture, fabric and firing. Side by side with the finer varieties of this group, coarse black and the coarse Black-and-Red also persist. Occasionally, some pieces also show the application of external chocolate and internal black slip. Painted designs on this ware comprise dots, circle of dots, horizontal incisions and grooves filled with white colour, horizontal lines and grooves in black on chocolate surface and also a group of lines in deep black on a coarse black surface. One piece is painted with stylised human figure. This ware also continues in the early levels of the N. B. P. Ware.

## PERIOD III

*Class* 3—The N. B. P. Ware—The third class consists of the well-known N. B. P. Ware. Some of the earliest specimens of this ware are painted with rim bands, oblique lines on the body, with arches, triangles and other complex motifs in chocolate, reddish yellow and steel-black colour on a lustrous black, silver-coloured or shining yellowish red surface. The continued occurrence of the Painted Grey Ware along with the painted N. B. P. Ware and the occasional similarity in the painted motifs of the two show an unmistakable influence of the painting traditions of the former on the latter. It is, however, noteworthy that the earliest evidence of lustrous black polish is not furnished by the bowls and dishes which this ware shares with the P. G. Ware. The polish occurs for the first time on the external surface of the small vases of red ware.

## PERIOD IV

*Class* 4—The fourth or the last class is characterised by the complete absence of the N. B. P. Ware. The types of this group are commonly found at most of the sites in the Gangetic Valley.

Some important types are described below :—

## RED WARE

( Figs. 9-12 )

### *Bowls*

*Type* 1—Fragment, bowl, incurved sharpened rim, flaring sides, fine fabric, treated with a wash. I. 2 to III. 9 and with a slight modification also occurs in N. B. P. (III). Cf. Hastināpura (Fig. 15. T 1 and 1 a, p. 54).

*Type* 2—Rimless hemispherical bowl, fine fabric, coated with white colour on reddish surface on both the sides. I. 2.

*Type* 3—Bowl, incurved rim, concave tapering side, dotted incised line decorating the outer surface, medium fabric, treated with a red wash. I. 3 to III. 9 and also in N. B. P. (III). The type is reported from NVT (Malwa fabric).

*Type* 4—Fragment, bowl, flaring sides, pointed edge, medium fabric, treated with a red wash on both the sides. I. 3.

*Type* 5—Fragment, bowl-cum-basin, two ridges and a prominent groove on the rim, the rim-edge has a slight depression on the upper portion, fine to medium fabric, both sides are treated with a red slip. I. 3. Cf. NVT III (Fig. 29. T 30 and its variants).

*Type* 6—Bowl, vertical rim distinguished by a marked internal depression, tapering sides, fine to medium fabric, treated both externally and internally with a red slip. I. 4.

*Type* 7—Fragment of bowl or probably a shallow dish, thick sides, rounded edge, medium fabric, treated with a red slip. I. 4.

*Type* 8—Bowl, bevelled-in rim, sturdy fabric unevenly baked. I. 4.

*Type* 9—Fragment, possibly goblet (?), rounded edge, insignificant ledge on outer side, possibly out-going even near the base, medium fabric, treated with a red-ochre wash on both the sides. I. 4 to II. 8. Similar types are reported from NVT III and IV.

*Type* 10—Bowl, bevelled out rim, tapering sides, medium fabric, treated with a red slip. II. 5.

*Type* 11—Fragment of bowl, out-curved edge, convex sides, medium fabric, red slip on both sides, II. 5. but survives even in N. B. P. (III).

*Type* 12—Bowl or dish (?) thick sides, sharp tapering edge treated both externally and internally with a brick-red slip. II. 5.

*Type* 13—Similar to type 3 above, bowl, inturned rim, flaring sides, fine fabric, treated with a red slip. II. 5.

*Type* 14—Fragment, rimless bowl, rounded edge, vertical sides, traces of bright red slip. II. 5 to II. 8.

*Type* 15—Bowl, broad flat rim, coarse sturdy fabric showing a good deal of mica-particles, treated with a dull red wash on both the sides. II. 5. Similar types are reported from NVT II and III (Fig. 10. T 14 a).

*Type* 16—Bowl, thick sides, beaded out rim, flat base, sturdy fabric, devoid of any slip or wash. II. 5. Similar types are reported from NVT III and IV.

*Dishes*

*Type* 17—Shallow dish externally beaded rim, decorated with finger-tip-depressions at the top, sagger base, medium to coarse fabric, treated with a bright red slip on the inner surface. I. 3 to II. 5.

*Type* 18—Fragment, possibly dish, slight carination at the shoulder, squared edge, slightly flared, both the surfaces treated with a red-ochre wash, core compact and light brown. I. 4. The type occurs at Moṭāmachiālā I, RGP III, Amrā II and NVT III and IV.

*Type* 19—Fragment of the rim of a dish, convex sides rounded edge, recurved sides, bulging near the base, core compact, treated with a red slip, black polish on the interior. I. 4.

*Type* 20—Dish, slightly incurved featureless rim, medium fabric, treated with a red slip. I. 4.

*Type* 21—Variant of the above but differs in having almost vertical sides. I. 4 to II. 5.

*Type* 22—Fragment of dish with squat sides, bulging near the base, fine to medium fabric, treated with a brick-red slip on both the surfaces. I. 4.

*Type* 23—Variant of T 19, convex sides, rounded edge, core blackish, indifferently fired, surfaces blotchy. I. 4 to II. 7.

*Type* 24—Dish (dish-on-stand ?) flared sides, squared edge, ridge on the inner surface, outer surface blotchy, dull red compact core. II. 5. Reported from NVT III (Fig. 33. T 37 and its variants).

*Type* 25—Shallow dish, out-turned rim decorated with oblique finger-tip-depressions, medium to coarse fabric, treated with a red slip. II. 5.

*Type* 26—Dish-cum-basin with rounded edge, double grooves on both the sides, ridged shoulder, coarse fabric, traces of red-ochre-wash on both the sides. II. 8.

*Pans* (karāhīs)

*Type* 27—Fragment of pan-cum-dish (?) with a knobbed vertical handle, a prominent shallow groove on the outer side of the rim, cordon at the junction of the rim and the body, fine fabric, treated with a bright red wash, and traces of burning on the rim. II. 5. The type occurs at NVT II and III and RGP II B and II C (but no handles were found).

*Type* 28—Fragmentary, similar to above but handle replaced by lug, fabric medium, both sides red slipped, uncommon type. II. 5.

*Type* 29—Fragment of a pan with a vertical handle, marked grooves on the outer side of the rim, coarse sturdy fabric, bright red-washed surfaces. II. 5.

*Type* 30—Fragment, flat pan (or dish ?), internally beaded rim, coarse fabric, core blackish. II. 5. The type is also reported from NVT II–IV.

*Lid*

*Type* 31—Lid with flaring rim, handle in the centre and decorated with zigzag incised design on the inner side, traces of burning on the edge, medium fabric, the exterior treated with a red slip. II. 8. A similar type in dish occurs in Malwa fabric at NVT III and IV.

*Beaker*

*Type* 32—Fragment of a beaker (?), flaring sides, medium fabric, red-slipped exterior II. 7. Similar types are reported from RGP II. B, Somanātha II and NVT III.

*Type* 33—Beaker (?) with squared edge, flaring sides and flat base, medium fabric, exterior with red wash, indifferently fired, occurs from packing of Rampart 2. Comparable to beaker types of RGP II. B and II. C., NVT III and NVS III.

*Dish-on-stand*

*Type* 34—Fragment, dish or dish-on-stand? with rounded rim, prominent shallow groove on the outer surface just below the rim, forming a cordon at the junction of the body and the rim, treated with a bright red slip; on the rim traces of burning and painting (?). II. 5. Reported from NVT II and III (Fig. 32. T 36 b), RGP II B and II C and Mehagāon.

*Type* 35—Fragment, flat dish or dish-on-stand, with angular sides, bluntly carinated shoulder, medium fabric, core porous, treated with a red wash on both the surfaces. II. 7.

*Type* 36—Fragment, stem of a stand, comparatively thick and small, concave from within, coarse fabric, core porous, dull red-washed exterior and blackish interior. I. 3. The type occurs in RGP II B and II C (?) and NVT II and III.

*Type* 37—Fragment, tall hollow stem of a dish-on-stand, grey ware, vertical trimmings on the outer side and marked depressions on the inner side, fine grey fabric, core compact and ashy grey. I. 4. The type exists at NVT II and III.

*Type* 38—Similar to above, thick sturdy red ware, weakly-grooved interior, dull red-washed exterior. II. 5. The type is reported from NVT II and III.

*Type* 39—Fragment of ringed base with a short-footed concave base, coarse fabric, core gritty, porous, external red wash. II. 7. The type is reported from RGP II B.

*Type* 40—Fragment, base of dish-on-stand, hollow base upturned beaded edge, medium fabric, bright red-slipped outer surface. II. 8. The type occurs in NVT II–V (Fig. 28. T 29) and RGP II B.

*Basins*

*Type* 41—Basin, externally clubbed rim, coarse fabric, showing a good deal of mica-particles, more on the outer surface, red-slipped surface. I. 3. Similar type is available at NVT II–IV (Fig. 30. T 31).

*Type* 42—Fragment, dish-cum-basin with bevelled-in rim, coarse fabric, gritty core with good deal of mica and lime particles, red slip on both the sides. I. 4. The type is reported from NVT II–IV and RGP II B.

*Type* 43—Fragment of basin with nail-head rim, medium fabric, devoid of slip or wash. I. 4. Reported from RGP II C.

*Type* 44—Fragment, basin, externally chamfered rim, fine fabric, treated with a bright red slip below the lower portion of the rim on the inside and ordinary red wash on the remaining surface. I. 4.

*Type* 45—Fragment of basin, vertical sharpened rim, carinated sloping-in sides, ledged shoulders, dull red course fabric, bright red slip. I. 4.

*Type* 46—Fragment, carinated basin with sloping-in sides rounded edge, and ledged shoulder, dull red coarse fabric, both the surfaces red-washed. I. 4 to II. 8. The type is reported from NVT IV.

*Type* 47—Fragment of a basin with an out-turned rounded rim, coarse fabric, red wash on both the sides; uncommon type. II. 5. Cf. NVT II, III (Fig. 10. T 14 A and 14 B). The type is also reported from Ālamgīrpura and Lothal II B.

*Type* 48—Fragment of a basin with an out-turned internally corrugated rim, a groove at the junction of the rim and the body on the outside, grey core and red-ochre slip. II. 5.

*Type* 49—Fragment of a basin with externally flanged and internally grooved rim, medium to coarse fabric and red-ochre slip. II. 5.

*Type* 50—Fragment of basin, externally clubbed and internally grooved rim, fine to medium fabric, both the surfaces treated with a dull red slip. II. 5.

*Type* 51—Fragment of a basin with externally beaded rim and grooves on the external side of the body, coarse fabric, both the surfaces red-washed. II. 7.

*Type* 52—Basin with an inturned obliquely-cut rim and convex sides, fine fabric, treated with red slip internally and externally. II. 8. Comparable to NVT III (Fig. 21. T 23 g).

*Vessels*

*Type* 53—Miniature vase, out-turned featureless rim, concave neck, fine fabric, treated with a red wash. I. 2.

*Type* 54—Fragment of pot, internally cut rim, concave neck, coarse fabric, both the surfaces treated with a red slip. I. 4 to II. 5.

*Type* 55—Fragment, high-necked vessel of dull red ware, collared rim distinguished by a groove on the inner side, medium fabric, red-washed surface. I. 4 to III. 9.

*Type* 56—Fragment, vessel, thickened out-turned rim distinguished by an internal groove, coarse fabric, red-slipped sides. I. 4.

*Type* 57—Fragment, vessel, flared externally thickened squarish rim, coarse fabric, ill-fired. I. 4.

*Type* 58—Fragment, vessel, convex rim, concave neck, fine fabric. I. 4 to II. 7.

*Type* 59—Fragment, vessel, beaded-out rim, high concave neck, globular body (?), undercut rim, coarse fabric more akin to Malwa fabric, bright red-washed surfaces. II. 5 to III. 9. The type is reported from RGP II C and III. Somanātha III and NVT I–IV (also found in Jorwe fabric).

*Type* 60—Fragment of pot, an out-turned beaded rim having a sharp depression in the middle, constricted neck, coarse fabric, grey core, II. 5 to III. 9. The type is reported from RGP III (?) and NVT.

*Type* 61—Fragment of storage vessel, beaded out rim and grooved constricted neck, coarse fabric. II. 5. The type is reported from RGP II B, II C and NVT II and III.

*Type* 62—Fragment of jar, dull red ware, a vertical externally ridged rim, fine fabric, thin section, one of the common types, occurs along with its variants at all the important sites of the Gangetic basin, viz. Hastināpura, Ahichchhatrā, Jhūnsī, Bhīṭā, Vaiśālī and also at Taxila. II. 5 to III. 9.

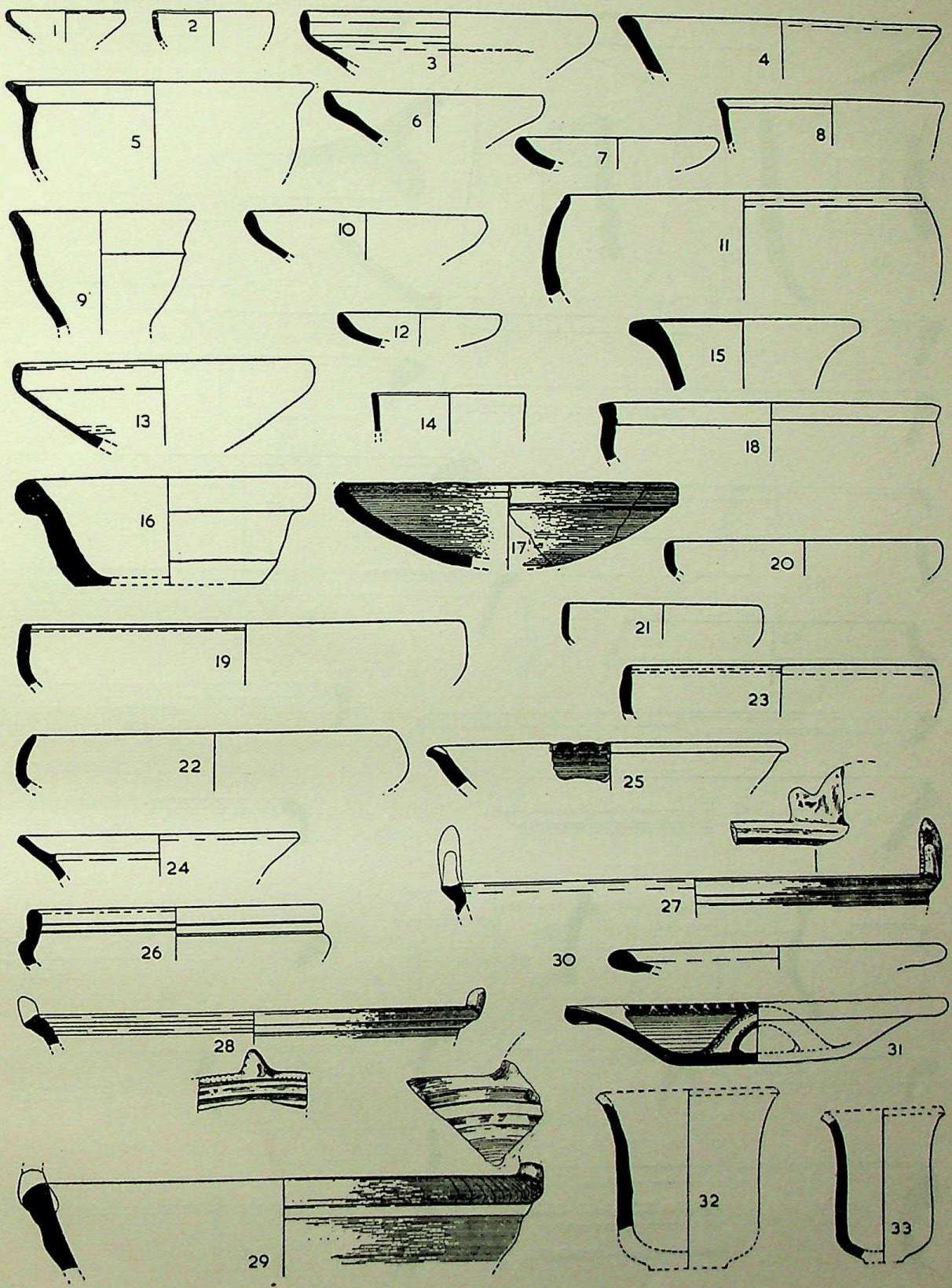
*Type* 63—Fragment of rim of vessel with an obliquely cut rim, coarse fabric, core burnt-black, gritty, treated with a red wash. II. 5 to III. 9.

*Type* 64—Fragment of storage vessel of dull red ware, externally collared rim, coarse fabric, ill-baked, gritty porous core. II. 5 to III. 9.

*Type* 65—Fragment of vessel, nail-head, flaring out neck, fine to medium fabric. II. 5 to III. 9.

*Type* 66—Fragment of vessel, externally bevelled rim, straight sides, slightly convex near the base, coarse fabric, grey core, bright red slip. II. 5.

*Type* 67—Fragment, dull red ware, slightly out-curved nail-head rim, concave neck, medium fabric, red wash. II. 5 to III. 9.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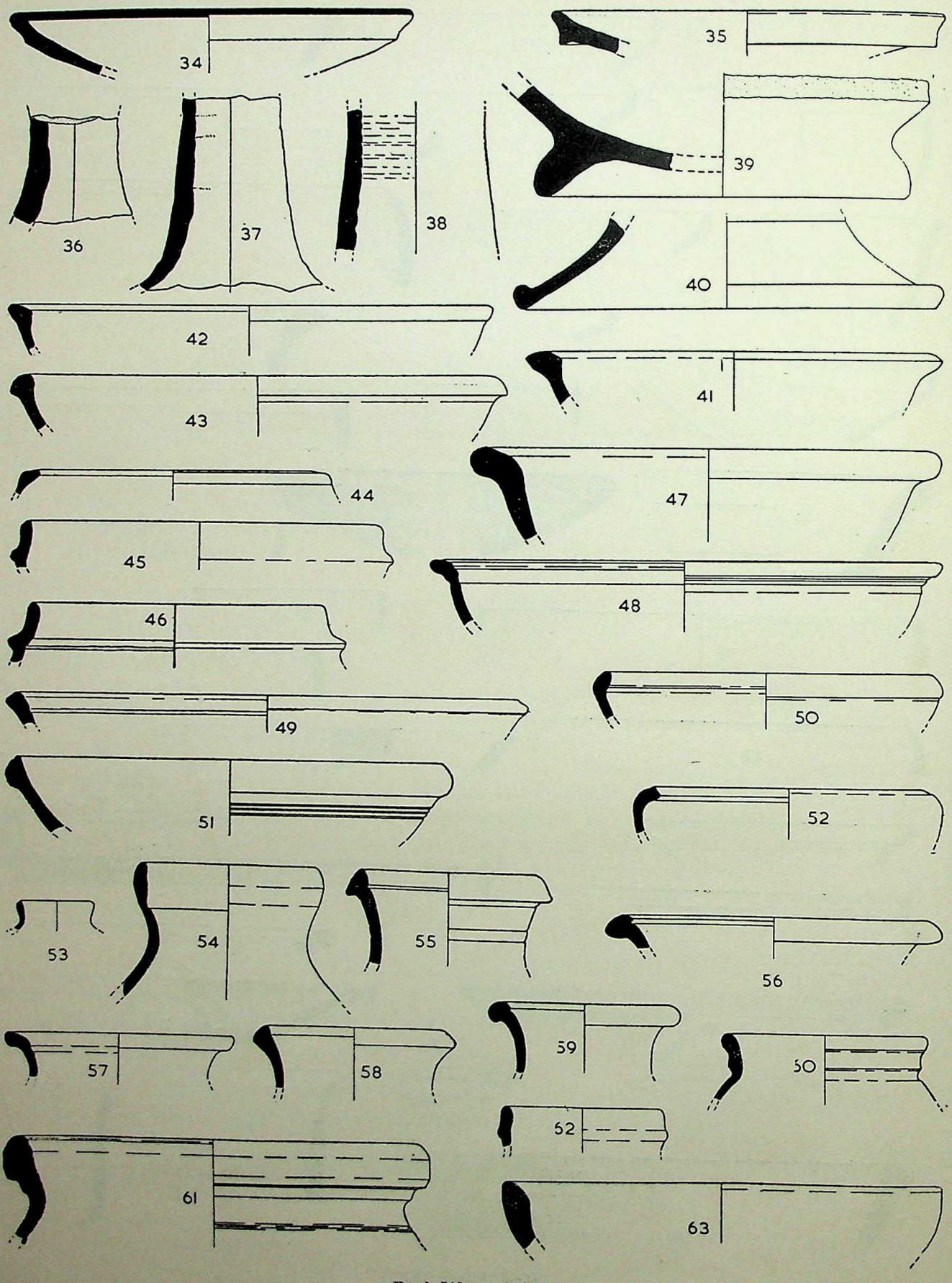
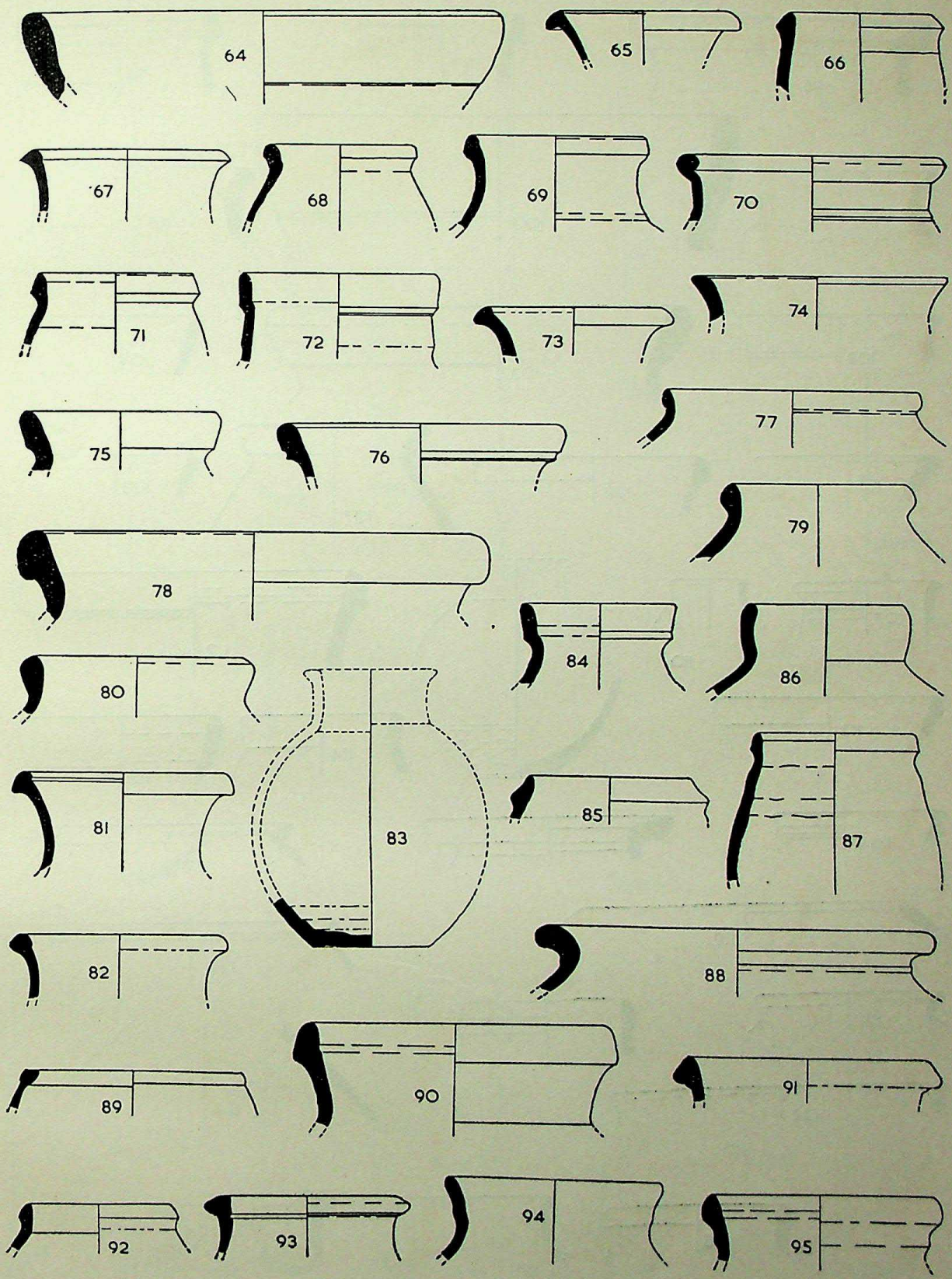
Red Ware (1/4)

FIG. 10




Red Ware (1/4)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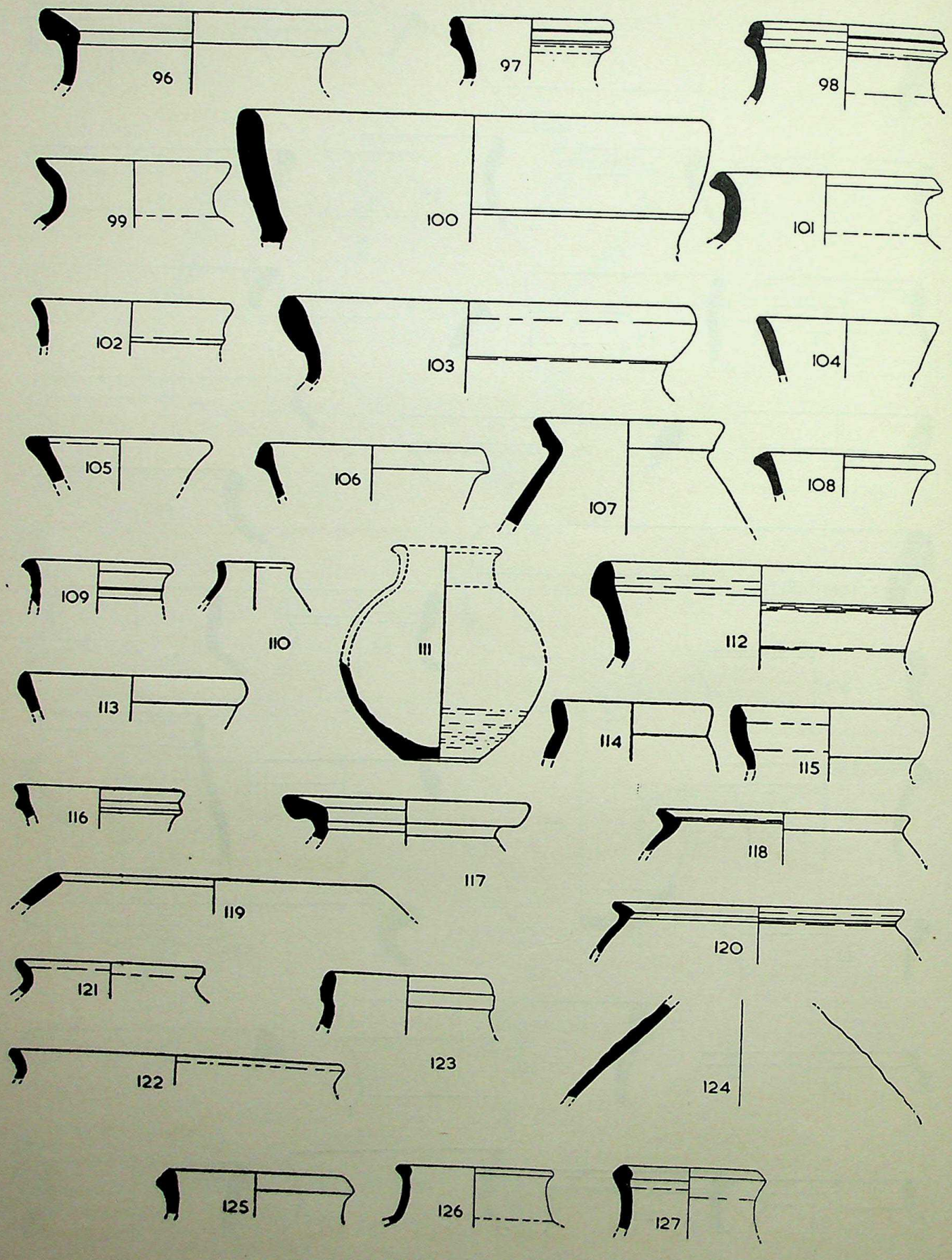
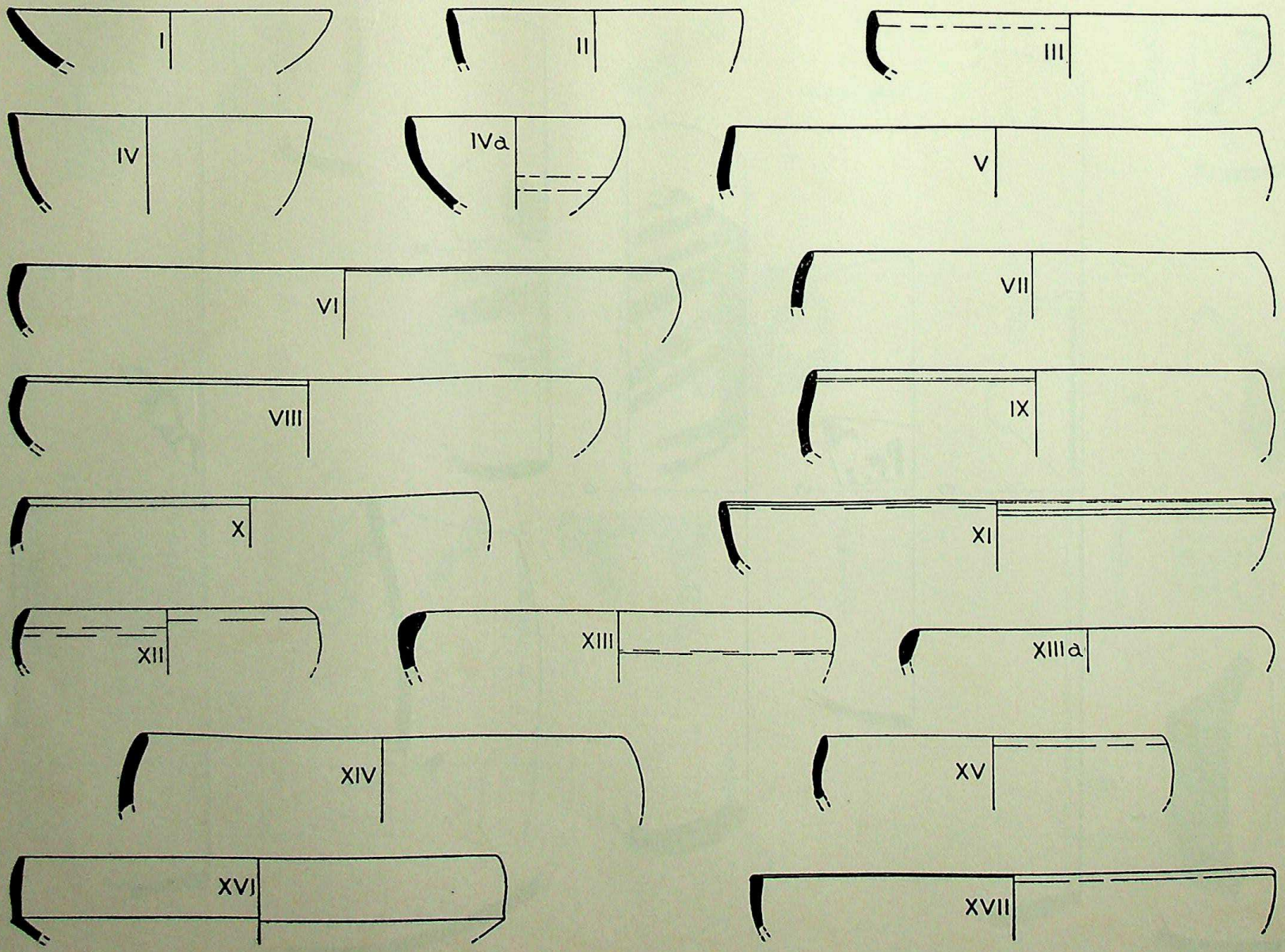
Red Ware (1/4)

FIG. 12



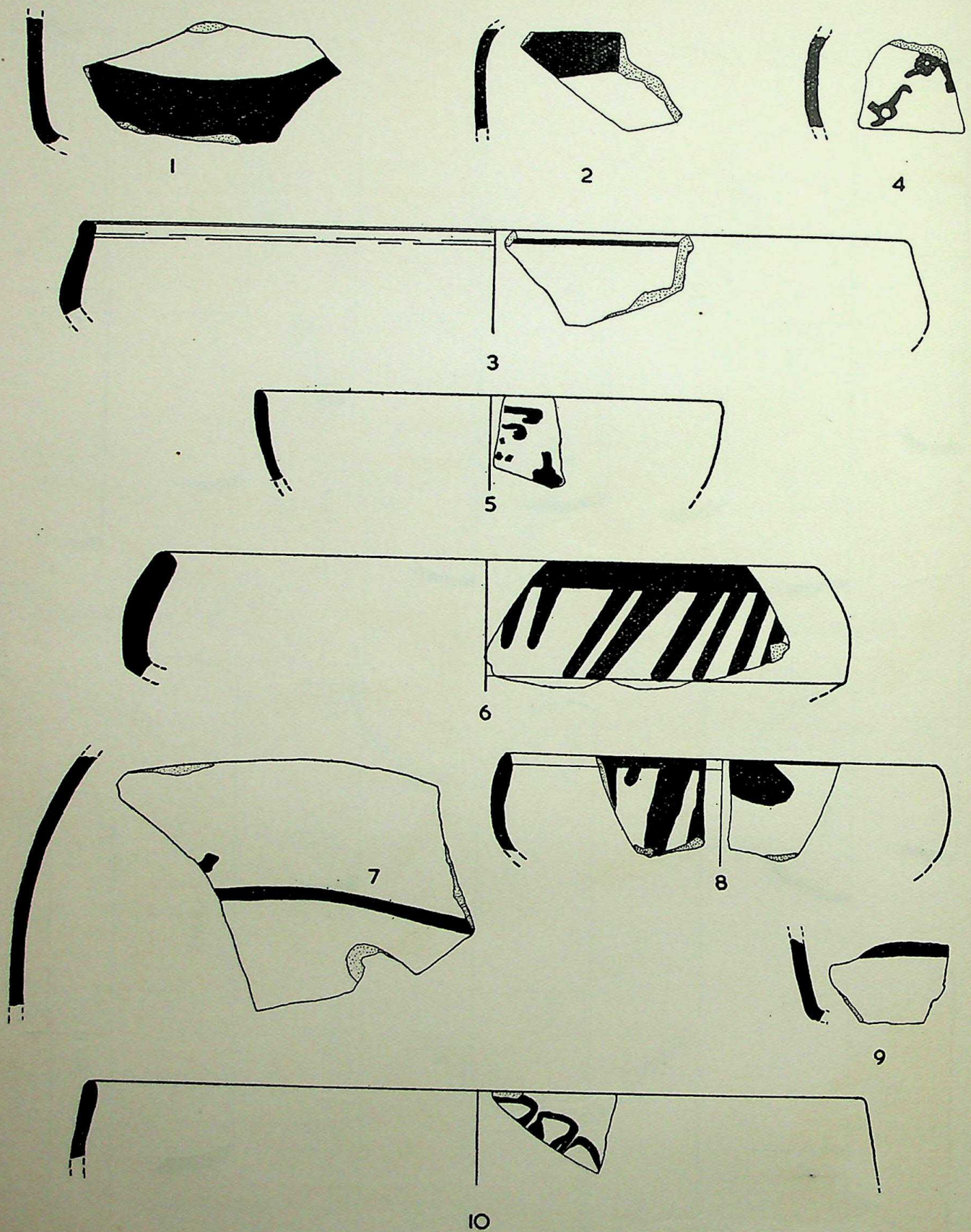

Red and Black-and-Red Ware (1/4)



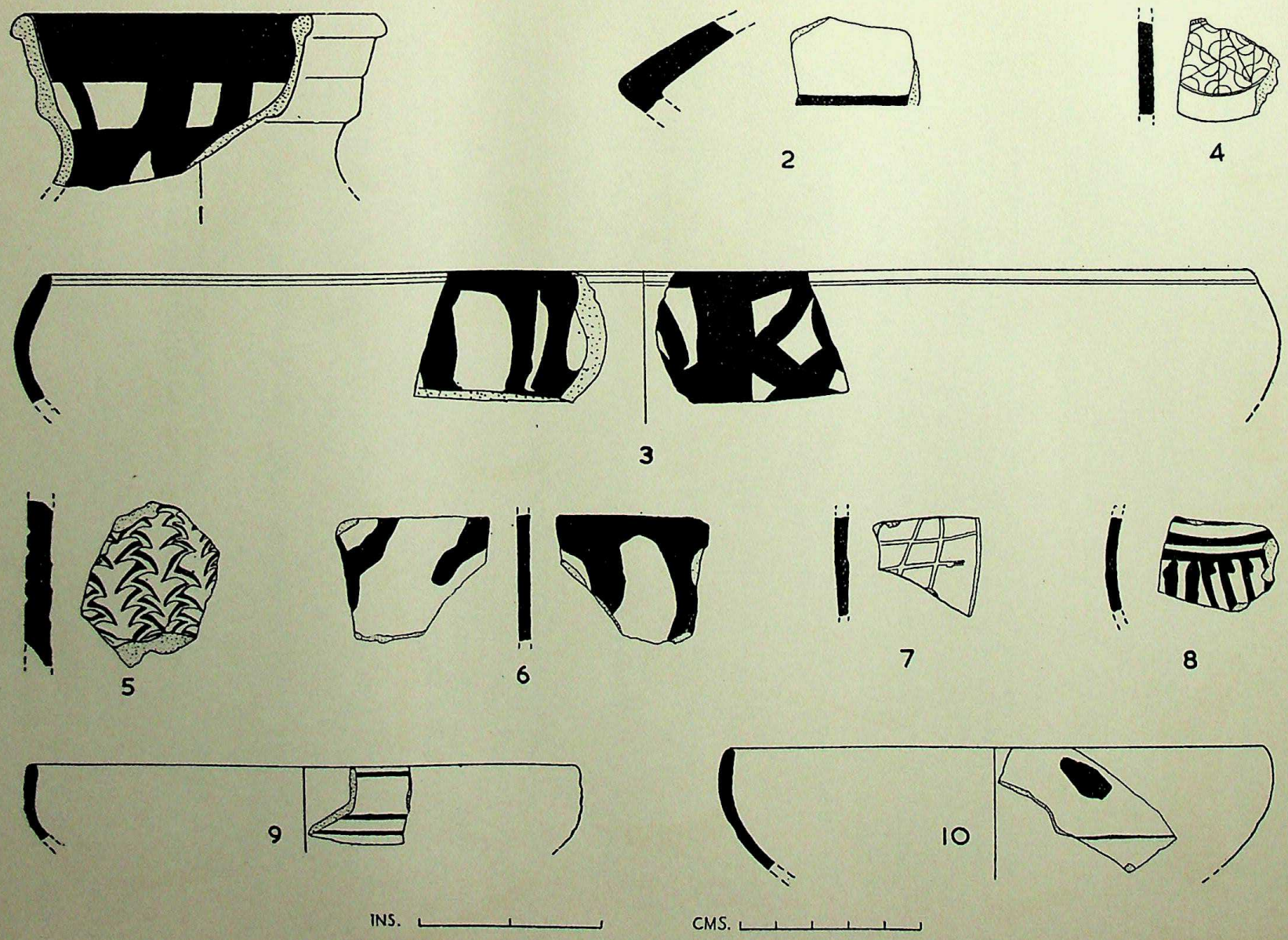

Grey Ware (1/3)

FIG. 13

FIG. 14




Painted Grey Ware




Painted and incised N. B. P. Ware

FIG. 15

*Type* 68—Fragment, elongated globular vessel with a rounded rim, insignificant neck, fine to medium fabric. II. 5.

*Type* 69—Fragment, vessel with an out-turned externally thickened rim and slightly concave neck, fabric coarse, red wash. II. 5 to III. 9.

*Type* 70—Fragment of a pot with a rounded, internally beaded and undercut rim, vertical neck, fine fabric, well levigated clay, red wash. II. 5 to III. 9.

*Type* 71—Fragment, elongated globular vessel, externally collared rim having a pronounced external rib and a constricted neck, fine fabric, indifferently fired, red slip on both sides. II. 5 to III. 9. Reported from RGP II B.

*Type* 72—Fragment, straight neck, an out-curved externally collared rim, thickened above the junction of the neck and the body, fine to medium fabric. II. 5 to II. 7.

*Type* 73—Fragment, vessel, externally thickened rim, concave neck, coarse fabric, red slip. II. 5. The type is reported from NVT II–IV and RGP III.

*Type* 74—Fragment, vessel, flaring rim, medium fabric, red slip. II. 5.

*Type* 75—Fragment, vessel, an out-curved externally banded rim, short neck, coarse fabric, treated with a red wash. II. 5 to II. 6.

*Type* 76—Fragment, vessel, almost vertical featureless rim distinguished by a prominent deep external channel, insufficiently baked. II. 5.

*Type* 77—Fragment, pot, slightly out-turned externally beaded rim, expanding sides, constricted neck, fine fabric, red wash. II. 5.

*Type* 78—Fragment, storage vessel, slight depression on inner side, externally beaded rim, concave neck, coarse fabric, blackish core. II. 5 to II. 6. The type is reported from RGP II B, II C, Aṭkoṭa and Sultānpur (Late Harappan) and NVT II–IV.

*Type* 79—Fragment, pot, oblique rim, insufficiently fired. II. 5. The type is reported from RGP III, Somanātha III and NVT I–IV.

*Type* 80—Fragment, pot, thickened rim, medium to coarse fabric, red wash. II. 5 to II. 8.

*Type* 81—Fragment, vessel, thickened nail-head rim distinguished by a groove on the inner side and a sharp outer edge, high concave neck, medium fabric, ashy black core, red slip. II. 5.

*Type* 82—Fragment, short-necked vessel, clubbed and internally grooved rim, concave neck, medium fabric. II. 5 to III. 9.

*Type* 83—Fragment, globular vessel, weakly grooved sides, flat base, fine fabric, compact core, treated with a red slip on both the sides. II. 5. Reported from RGP II A, II B and II C.

*Type* 84—Fragment, elongated globular vessel, externally vertical banded rim having a prominent ridge at its junction with the neck, coarse fabric, balckish core, dull red wash. II. 5 to III. 9. The type is also reported from NVT II-IV and RGP III.

*Type* 85—Fragment, pot, sharpened externally cordoned rim depressed in the middle, fine fabric, red wash. II. 5 to III. 9.

*Type* 86—Fragment, pot, internally slightly concave rim, short neck, expanding sides, fine to medium fabric, red wash on both the sides. II. 5 to early NBP levels.

*Type* 87—Gourd-shaped pot, outcurved (externally collared ?) rim, concave neck, sides with interior corrugations, medium fabric. II. 5 to N.B.P. It was extremely popular in the Gangetic Valley and also in Western India.

*Type* 88—Fragment, storage vessel, an out-turned clubbed rim, externally grooved neck, coarse fabric showing a good deal of mica and lime particles, both the surfaces treated with a red-ochre wash. II. 5. The type is reported from RGP II C and NVT I–IV.

*Type* 89—Fragment, vessel, bud-shaped rim, grooves on both the sides, medium fabric. II. 6. The type is reported from Lothal and Ālamgīrpura.

*Type* 90—Fragment, storage jar, externally beaded and internally grooved rim, coarse fabric, blackish core, bright red slip. II. 6.

*Type* 91—Fragment of a pot with externally bevelled rim, medium fabric. II. 6.

*Type* 92—Fragment, vessel, externally bevelled rim, medium fabric. II. 6 to II. 7.

*Type* 93—Fragment, pot, nail-head rim internally grooved, an internal depression at the junction of the rim and the neck, fine to medium fabric. II. 6 to III. 9.

*Type* 94—Fragment, pot, collared rim having a marked, wide depression on the exterior in the middle, neck concave, medium fabric. II. 6 to II. 7.

*Type* 95—Fragment, pot, slightly out-curved externally bud-shaped rim, grooved neck, fine fabric, treated with a red wash. II. 6 to III. 9.

*Type* 96—Fragment, storage vessel (?) bevelled-in and externally convex rim, comparatively fine fabric, bright red slip. II. 6 to early N.B.P. period. The type is reported from NVT II–IV (Fig. 61. T 86 b).

*Type* 97—Fragment, pot, externally double-grooved collared rim, concave neck, medium fabric. II. 7 to III. 9.

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*Type* 98—Fragment, pot, externally grooved round collared rim distinguished by a prominent internal depression, high and slightly concave neck, indifferently fired, red wash. II. 7 to III. 9 but in modified form survives even in N.B.P. period (III).

*Type* 99—Fragment, pot, flaring rim straightened near the top, fine fabric. II. 7 to III. 9 but fairly common in N.B.P. period (III).

*Type* 100—Fragment, storage jar, coarse fabric, burnt blackish core, red wash. II. 7 to III. 9.

*Type* 101—Fragment, pot, out-turned squarish externally thickened rim, short vertical neck, thickened at the mid-portion, medium fabric, unevenly fired. II. 7.

*Type* 102—Fragment, jar, out-turned featureless rim having an insignificant ridge, fine fabric. II. 7 to III. 9.

*Type* 103—Fragment, vessel, externally elliptical collared rim, coarse fabric, gritty core, indifferently fired, blackish interior. II. 7.

*Type* 104—Fragment, vessel or bowl, flaring sides, rounded edge, fine fabric, red wash. II. 7.

*Type* 105—Fragment, pot, bulbous edge or bowl with flat top, thickened rim, medium to coarse fabric, red wash. II. 7.

*Type* 106—Fragment, pot, externally sharp collared rim, neck not well defined, fine fabric, bright red slip. II. 7 to III. 9.

*Type* 107—Fragment, elongated vessel, squarish externally vertical collared rim, undercut carinated neck, sides flaring towards base, coarse fabric, gritty core, indifferently fired, red exterior and grey interior. II. 7 to III. 9.

*Type* 108—Fragment, vessel, externally beaked rim, coarse fabric, blackish core. II. 7.

*Type* 109—Fragment, pot, out-turned externally beaked rim, externally grooved vertical neck, medium fabric. II. 7.

*Type* 110—Fragment of a small vessel, out-turned featureless rim, short neck, fine fabric. II. 7.

*Type* 111—It is a variant of Type 83. II. 7.

*Type* 112—Fragment, storage jar, slightly incurved externally thickened rim, concave neck, coarse fabric, blackish core, bright red slip. II. 8.

*Type* 113—Fragment, vessel, externally bud-shaped rim, fine fabric, red wash. II. 8.

*Type* 114—Vase (?) outcurved externally collared rim, short neck, fine fabric, externally red ochre-washed. II. 8.

*Type* 115—Fragment, vessel, outcurved (banded ?) rim, concave neck, medium fabric. II. 8 to N. B. P. (III).

*Type* 116—Fragment, jar, flat-topped externally ledged rim, distinguished by an external channel, fine fabric. II. 8.

*Type* 117—Variant of T 96 but squat rim. II. 8. Fabric more akin to Malwa fabric i.e. with a thick red slip.

*Hāṇḍī (Cooking-Vessels)*

*Type* 118—Fragment, *hāṇḍī*, sharply out-turned rim, carinated neck, prominent ledge at the junction of the rim and neck on the interior, red slip on both the surfaces. I. 3 to III. 9.

*Type* 119—Fragment, rimless and neckless *hāṇḍī*, fine fabric, red slip on the exterior and greyish interior. I. 4 to II. 8. The type is common in N.B.P., Grey and Black-and-Red Ware of early historical period at Nevāsā.

*Type* 120—Fragment, *hāṇḍī*, nail-head rim, medium fabric with a burnt exterior (as a result of cooking). II. 5.

*Type* 121—Fragment, *hāṇḍī*, out-turned rim, medium fabric, burning marks on both the sides. II. 7.

*Type* 122—Fragment, broad *hāṇḍī*, out-turned rim rounded at the top, short neck, coarse fabric. II. 7.

*Black-and-Red Ware* (*Fig.* 12)

*Type* 123—Fragment, jar, externally double-banded rim, fine fabric, blackish core. II. 7.

*Type* 124—Fragment, vessel, sloping sides, corrugated, dull red exterior, ashy interior, coarse fabric. II. 7.

*Type* 125—Fragment, pot, externally thickened bevelled rim, coarse fabric, blackish core. II. 7.

*Type* 126—Fragment, pot, nail-head rim, straight neck, fine fabric, not well fired, blackish core, rare type. III. 7.

*Type* 127—Fragment, internally clubbed aud externally oblique edged rim, vertical long neck, coarse fabric, core and interior blackish, bright red slip. II. 8.

## GREY WARE

(*Fig.* 13)

*Bowls*

*Type I*—Shallow bowl of grey ware, featureless rim, flaring sides, burnt blackish core, dark black slip. II. 5 to II. 7.

*Type II*—Bowl of grey ware, sharpened vertical featureless rim, grey core, black slip on both the sides. II. 5 to II. 7.

*Type III*—Bowl of polished grey ware, obliquely cut rim, convex sides, grey core, treated with a black slip both internally and externally. II. 5.

*Type IV*—Bowl of grey ware, bevelled-in rim, vertical edge, grey core, traces of black slip on both the sides. II. 6.

*Type IV a*—Bowl of grey ware, bevelled-in rim, flaring sides, grey core, devoid of any slip. II. 6.

*Dishes*

*Type V*—Dish of grey ware, vertical featureless rim, grey core, sides bulging near the base, treated with a black slip on both the sides. II. 5 to II. 7.

*Type VI*—Dish, rim flattened at the top, convex sides, blackish core, treated with a jet black slip on both the sides. II. 5.

*Type VII*—Dish, featureless rim, sloping-in sides, jet blackish core, treated with a black slip on both the sides. II. 6 to II. 7.

*Type VIII*—Dish of polished grey ware, rounded edge, convex sides. II. 5.

*Type IX*—Dish of grey ware, internally grooved rim, slightly carinated sides, fine fabric, grey core, treated with a black slip on the exterior only. II. 6 to II. 7.

*Type X*—Dish of polished grey ware, bevelled rim, fine fabric, treated with a black slip. II. 6.

*Type XI*—Dish, rim grooved on both the sides, grey core, blackish exterior and interior. II. 7.

*Type XII*—Basin, incurved, externally collared rim, medium fabric, blackish exterior. II. 5.

*Type XIII*—Basin, incurved, externally round rim, fine fabric, blackish exterior as well as interior. II. 6 to N.B.P. (III).

*Type XIII a*—Variant of the above but differs from the main type in having an elliptical collared rim, fine fabric. II. 6 to N. B. P. (III).

*Type XIV*—Dish, featureless rim, oval sides, grey core. II. 7.

*Type XV*—Dish of plain grey, an out-curved sharpened rim, medium fabric, without any slip. II. 5 to II. 7.

*Type XVI*—Dish, slightly incurved featureless rim, straight sides, thickened in the mid-portion, sagger base, bluntly carinated near the base with a prominent rib on the carination, medium to coarse fabric, grey core, treated with a black slip on both the sides. II. 6 to II. 8, also survives in the N. B. P. period (III).

*Type XVII*—Dish, externally beaded out rim, medium fabric, grey core, blackish interior and slaty exterior. II. 7.

## PAINTED GREY WARE

(Pl.50 Fig.14)

1—Fragment of a dish, body painted in black in a broad zone. II. 5.

2—Fragment of a dish, fine fabric, painted in black in thick zone at the junction of the side and the base. II. 5.

3—Fragment of a dish, horizontal rim-band in black on the outside. II. 5.

4—Fragment, painted externally in black, indistinct design looking like loops emanating from circles. II. 5.

5—Fragment of a bowl, body painted in black with dots and loops. II. 7.

6—Fragment of a dish, thick fine section, rounded edge, globular body, painted in blackish, grey on outer surface with oblique parallel bands in groups of two. III. 9.

7—Fragment of a dish, fine fabric, upper part painted, thick band in black at the end of the painted zone. III. 9.

8—Fragment of a bowl, fine fabric, painted in black on the interior with horizontal rim-band above a group of oblique bands and on the outside with a horizontal rim-band and dots. III. 9.

9—Fragment of a bowl, horizontal band in black in the middle of the body. III. 9.

10—Fragment of a bowl, sides painted with loops in ashy grey. Destruction pit of III. 10.

## PAINTED BLACK-AND-RED WARE

(Pl...5)

1—Fragment, black outside and red inside, grooves and parallel horizontal incisions filled with white colour. II. 5. ( Pl. 51, 1 ).

2—Fragment of a *hāṇḍī*, interior ashy grey, exterior chocolate red; the junction of the neck and the body decorated with horizontal line and dots and elongated loops in black on the body. II. 5. (Pl. 54, 1).

3—Fragment of a dish, black coarse core, black slip on both the sides, painted in white with a stylised human figure. II. 5. (Pl. 51, 2).

4—Fragment of dish or bowl, coarse fabric, exterior decorated with dot-like incisions filled with white and enclosed within a circle in white colour. II. 7. (Pl. 51, 3).

5—Fragment with an external chocolate and internal black slip. Painting in black in lines and dots on the exterior. From destruction of Rampart I after III. 9. (Pl. 51, 4).

6—Fragment of vessel, out-turned rim, straight neck, coarse fabric, rim and neck painted with black on the exterior. III. 14. (Pl. 51, 5).

7—Fragment of a *hāṇḍī*, coarse black inside and outside, exterior decorated with vertical bands in black. III. 14. (Pl. 51, 6).

## PAINTED RED WARE

(Pl. 52)

8—Sherd of sturdy red ware, painting in black over bright chocolate surface. II. 5.

9—Sherd of sturdy red ware, painting in black over bright chocolate external surface. II. 7.

10—Fragment of a sturdy red ware, smooth and well finished exterior, painted in black with a floral design. II. 8.

11—Fragment of a bowl, rim painted in black with band and body with oblique bands. II. 8.

12—Fragment, red ware, body painted with vertical bands. III. 9.

## INCISED RED WARE

(Pl. 53)

1—Fragment, outer surface decorated with symmetrical ridges. II. 7.
2—Fragment, body decorated with parallel channel-like depressions. II. 8.

3—Fragment of *hāṇḍī*, applique thick band of clay round the neck, the lower fringe cut into saw-tooth pattern; the band was applied before firing. II. 8.

4—Fragment, outer surface decorated with symmetrical ridges forming channel like depressions. II. 8.

5—Fragment of a band, decorated with oblique parallel cord-patterns forming grooves in-between. II. 8.

## INSCRIBED POTTERY

(Pl. 54)

[Inscribed pottery is not very common. The graffiti consists of vertical or oblique strokes scratched after firing.]

1—Fragment (of a dish-on-stand ?) with signs engraved after firing. II. 5.

2—Fragment with three signs one of which resembles a fish (?). II. 6.

3—Fragment with six marks one of which is a combination of three oblique strokes, II. 7.

## PAINTED AND INCISED N. B. P. WARE

(Pl. 55. Fig 15)

1—Fragment of a jar, beaded out and externally grooved rim, corrugated neck, internally painted with black horizontal band from which several vertical bands are suspended. III. 10.

2—Fragment of a carinated *hāṇḍī*, painted with reddish yellow band at the carination. III. 10.

3—Dish, painted on both the sides, on the outside a rim-band, body divided by thick parallel bands, the space between the two bands being filled by a cross enclosed within arcs; painting in steel black colour on a dark drab polished surface. On the interior parallel vertical bands in pairs of two, one suspended from a horizontal band at the rim, painted in bright black on bright red surface. III. 10.

4—Sherd, incised with circle divided nto triangles, trapezium and six-armed Svastika-like patterns at the junction of the triangle, trapezium and small semi-circles at the circumference. III. 11.

5—Fragment of a bowl, incised externally with palm-tree pattern. III. 15.

6—Sherd, painted on a reddish yellow surface in black on both the sides; on one side oblique bands, one of which merges into a semi-circle; loops in black issuing forth from the other black band. III. 15.

7—Sherd decorated with incised cheque pattern. III. 15.

8—Fragment of a small vase, steel black external surface painted in reddish yellow with three parallel horizontal bands, a number of parallel vertical bands suspended from the lowest one; the inside of the fragment is plain grey. III. 15.

9—Rim-fragment of a bowl, painted on both the sides with reddish yellow colour, on the exterior horizontal black thin bands. III. 15.

10—Fragment of a bowl, thin vertical rim, painted externally with a dot above horizontal line. III. 16.

## CHAPTER SIX

# TERRACOTTA FIGURINES

Excavations yielded 323 human and animal terracotta figurines, besides a large number of fragmentary parts of the body. The human figurines are divisible into three main groups—I. early hand-made, II. mould-made and III. a later group of hand-made figurines, showing occasionally a combination of both the techniques. Group I consists of figurines in grey (Pl. 44, no. 2), N.B.P. (Pl. 44, no. 1) and dull red ware bordering on grey (Pl. 44, no. 3). The neck forming a perforated tenon (Pl. 44, nos. 1 and 2) permitted the heads to swing from side to side. Nos. 4 to 6 (Pl. 44) were produced by joining together a number of separately prepared pieces and were finally coated with lime. The modeller invariably made use of applique decorations. The figurines, Pl. 44 nos. 3,4,5,6 and 7, evidently represent a female deity, probably Mother Goddess, very popular in the Gangetic Valley.

Group II (Pls. 45, 46) is represented by figurines produced generally by a single shallow mould. They share with the contemporary art in stone (2nd-1st century B.C.) stylization and archaic character, the representation being conceptual rather than realistic.[1] They have also a marked family likeness to the contemporary art, in dress, ornaments and decorations.

The earliest specimen occurs in *SP.* III. 14, but the group is generally distributed in *SP.* III. 15, 16 and IV. 17.

Group III (Pl. 47) consists of hand-made figurines. They differ from the hand-made figurines of Group I in theme, technique and general character. Unlike those of Group I, the figurines of this group are figures in the round, the human feature being portrayed with full detail as in the sculptures of the Kuṣāṇa and Gupta periods. The facial features in many cases are outlandish; the coroplast

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1. Benjamin Rowland, The Art and Architecture of India, p. 55.

was probably giving expression to foreign ethnic types. All these heads have tenons, which were meant to be inserted into hollow cylindrical bodies.

Some representative specimens are described below :

EARLY HAND-MADE (Pl. 44, nos. 1-6)

1—(KSB XIII. D/145-58). III. 10.

N.B.P. human head, receding forehead; broad, arched nose, tip disproportionately high; eyes and mouth shown by reddish yellow colour; ears absent and neck with a groove at the base represented by a perforated tenon to enable the head to swing from side to side. Grey core with bright black polish.

2—(KSB XIII. D/141-58). III 10.

Human head in grey, receding forehead, nose formed by pinching in one continuous projection with the head; applique round eyes set in depressions shown by incisions; prominent cheek bones and chin, hanging lower lip, depression round the mouth—all combine to give it a simian appearance. Tenon with transverse and horizontal perforations forms the neck, evidently to affix it to the body and to enable it to move from side to side, and up and down. Grey core with grey slip.

3—(KSB XIII. D/270-58). III. 10.

Female figurine with bird-like face formed by pinching the clay. Forehead, eyes, mouth, lips undigitated; horizontally extended arms formed by pinching the clay and end in points without indication of hands and fingers; breasts worked out in applique; broken at the waist. Fine red clay with red colour.

4—(KSB XIII. D/74-58). III. 12.

Female figurine with oval face, prominent forehead, well-shaped and graceful nose, cheeks and lips; applique heavy round breasts, nipples also shown; very elaborate applique head-gear, the fringes of which on the forehead are decorated by a thin arched border of clay from which are suspended two circular buttons of clay; applique heavy plano-convex ear-rings, necklace shown like a choker by a flat band, broken at the navel. Red clay with lime coating.

5—(KSB XIII. D/84-58). III. 12.

Female figurine, oval face, prominent forehead, graceful eyes and nose, fleshy cheeks and lips, bicornate head-dress forming two prominent volutes having lateral perforations. The hair is decorated with a semi-circular chain ending in two circular buttons; a tabular ear-ring in the right, three-tiered circular ear-ring in the left ear and a choker with indentations round the neck are the ornaments displayed on the body. Red clay with lime coating.

6—(KSB XIII. D/266-58). III. 12.

Fragment of a (female ?) figurine, only body below the navel and parts of the legs available, legs taper but are shown completely separate, the left leg is preserved up to the knee and the clothe around the waist is exaggerated; loosely hanging girdle is made by affixing thick clay decorated with a number of circular bosses. Red clay.

For 4, 5 and 6 cf. Coomaraswamy, IPEK (1928), group 2 type I, pp. 67 ff, Pl. I.5.6; Pl. VII. 51, and Hastināpura, A.I. (1954, 55), 10, 11. Pl. XXXVI. 1. 2 and 5.

MOULD-MADE (Pls. 45 and 46)

7—(KSB XIII. D/72-58). III. 14.

Female figurine, smiling oval face, prominent forehead, eyes shown by incision, well-shaped nose, depression round the mouth, lips parted, chin brought into relief by a cut below lower lip, prominent round breasts, hair arranged in braids, decorated at the forehead with double chain of pearls terminating in two circular buttons, hanging ear-rings and necklace, folds of the heavy drapery shown by parallel oblique grooves. Single mould, dull red clay coated with lime.

8—(KSB XIII. D/54-58). III. 14.

Female figurine, round face; forehead, eyes, nose, cheeks and lips shown distinctly. Bicornate head-dress arranged in two volutes, the right one slightly tilted. Circular ear-rings with tassels, beaded necklace with a pendent and *channavīra* decorate the body. The figure is set in a border of rosace. Red clay with bright red slip.

9—(KSB XIII. D/144-58). Destruction of III. 14.

A *Mithuna* plaque showing an amorous scene with male on the right and female on the left. The male bears a turban with a knot on the left and small circular ear-rings. The hair of the female is arranged in braids falling at the back. She has large lotus-shaped ear-rings. The borders are decorated with rosaces. Single mould, red clay with bright red slip.

10—(KSB XIII. D/248-58). Destruction of III. 14.

Fragment of a *Mithuna* plaque. Folds of heavy drapery prominently shown. Single mould. Red clay with red wash.

11—(KSB XIII. D/161-58). Destruction of III. 14.

Female figurine, long face, prominent eye-brows, eyes, pupils, nose and lips shown in clear relief, heavy breasts, hair arranged in braids shown by prominent oblique incisions, turban slightly tilted to left. Its tiers represented by horizontal grooves and attached together by a piece of garment shown by two parallel incisions cutting through the tiers, two circular ear-rings and a sophisticated necklace which has a central boss enclosed within two reversed *triratna* like objects. Deep single mould. Red clay with bright red wash.

12—(KSB XIII. D/182-58). Destruction of III. 14.

Headless female figurine with torque and necklace, armlet, bracelet, triple-stringed girdle from which tassels are suspended. The figure is set in a border of rosaces. Red clay with bright red slip. Single mould.

13—(KSB XIII. D/301-58). Destruction of III. 14.

Female figurine, long face, prominent forehead, nose, lips and chin. The hair arranged in a knot at the back and tied with a piece of cloth, circular ear-rings and a necklace from which a number of tassels are suspended on the breasts. Single mould. Red clay with a bright red wash.

14—(KSB XIII. D/1-58). III. 15.

From sacrificial altar, p. 122.

15—(KSB XIII. D/254-58). III. 16.

Female figurine, long face, forehead, eyebrows, eyes narrowed at the ends, pupils, nose, lips and chin shown clearly. The hair is arranged in braids decorated with double semi-circular pearl-strings. On either side of a central lotus medallion five cord-like ribs represent the crown. The upraised right hand is holding a full blown lotus. Single mould. Red clay with bright red slip.

16—(KSB XIII. D/51-58). III. 15.

Female figurine, broken at the navel, right hand flexed and resting below the navel, the left at the heavy triple-stringed girdle, bracelets and three anklets, both the ends of *dhotī* tied behind the legs. Single mould. Red clay with red slip.

17—(KSB XIII. D/143-58). III. 15.

Standing human figurine, broken at the naval and the knees, bearing a girdle with four strings the second and fourth of which are made of beads, holding a club-like object in the right hand. Single mould. Red clay.

18—(KSB XIII. D/221-58). III. 16.

Headless female figurine, standing akimbo, right leg flexed. The folds of *dhotī* tied behind are prominently shown. Ornaments consist of torque, necklace, bracelets, double stringed girdle and three anklets. Single mould. Red clay.

19—(KSB XIII. D/298-58). IV. 17.

Broken (female ?) figurine, standing, left hand flexed and placed on left thigh, heavy drapery shown by wavy lines, six-chained necklace coming upto the navel, armlets and bracelets prominently shown. Single mould. Red clay.

Hand-Made and Hollow Cylindrical body (Pl. 47)

20—(KSB XIII. D/293-58). IV. 20.

Human head, broad forehead, eye-brows, eyes and pupils marked by grooves, prominent nose, thick lips, the lower one upturned with two marked depressions at the two ends, inconspicuous chin forming one curve with cheek bones, applique ears, ear-holes indicated by voids. Hair arranged in briads possibly tied in a knot (now broken) with an ornament on the forehead. Tenon broken. Red clay with bright red slip.

21--(KSB XIII. D/285-58). IV. 20.

Female (?) head, eye-brows and well-made lenticular eyes shown by prominent grooves, pupils indicated by voids. Well-developed nose with broad nostrils, depressions underneath the cheek bones and incisions at the two ends of the mouth and in the middle of the curved lower lip, give the face a graceful expression. Applique ears adorned by circular perforated buttons. Fringes of the hair shown by two arches at the forehead crowned with a projecting turban-roll marked by grooves from the middle of which is suspended a crest jewel. Another ornament shown by arched grooves on the forehead and at the temples. Tenon broken. Red clay with bright red slip.

22—(KSB XIII. D/46-58). IV. 20.

Human head, eye-brows and eyes shown by prominent grooves, pupils by voids, well-shaped nose and mouth with deep cuts at both ends, applique ears with large ear-lobs decorated with floral designs. An elaborate turban-roll, the twists of which are indicated by vertical grooves with a central crown decorated with double grooves and several arches radiating from them. Tenon broken. Red clay with bright red slip.

23—(KSB XIII. D/292-58). IV. 20.

Human head, well-shaped forehead, eye-brows and eyes shown by grooves, pupils by voids, equiline nose, traces of moustaches, lips parted and depressed at both ends, chin brought into relief by depression below lower lip, applique ears with large circular buttons showing indentations, hair done into braids tied at the back, decorations at the forehead indicated by grooves and indentations, crest jewel in the centre of the forehead. Tenon broken. Red clay with red slip.

24—(KSB XIII. D/279-58) IV. 21.

Female head, well proportioned forehead, lenticular eyes, pupils shown by voids, nose with a high ridge; lips slightly parted; cheek bones, cheek and chin form a curve; applique ears with circular buttons decorated by incised patterns. Hair arranged in braids and tied in a knot at the back of the head; a crest jewel suspended at the forehead. Tenon broken. Red clay with red slip.

25—(KSB XIII. D/259-58). IV. 22.

Male head, broad forehead, eye-brows, eye-lids and eyes shown by prominent grooves, pupils by voids, equiline nose, thick applique moustaches, parted lips, a crescent below the lower

lip brings the chin into releif, applique ears, a high crown decorated at the base and in the middle by incised bands, similar decoration at the forehead. Tenon broken. Red clay with red slip.

26—(KSB XIII. D/67-58). Destruction of IV. 20.

Female head, broad fore-head, eye-brows and eyes indicated by grooves, pupils by voids, thick nose, nostrils shown by two holes, parted lips cut at both ends, applique ears with large circular buttons, parted hair done in braids and tied at the top, a crest jewel at the forehead. Red clay with bright red slip.

27—(KSB XIII. D/68-58). Destruction of IV. 20.

Male head, broad forehead, high eye-brows shown by two arched ridges, pupils by voids protruding eyes, broken nose, nostrils depicted by two holes, prominent cheek bones and chin, parted lips cut at two ends, applique ears with cylindrical-circular lobs, hair decorated in seven braids tied into a roll at the back of the neck, decorations of the hair shown by dots, another dot at the centre of the forehead. Tenon broken. Red clay with bright red slip.

28—(KSB XIII. D/72-58). Destruction of IV. 20.

Female figurine, elongated face, broad forehead, eye-brows and lenticular eyes shown prominently, pupils shown by grooves, equiline nose, thick protruding parted lips cut at both the ends, applique ears with circular buttons, prominent breasts, broad flat torque round the neck having parallel grooves. Hair arranged in braids and tied in a rectangular knot at the back. Hollow cylindrical body. Red clay with red slip.

29—(KSB XIII. D/69-58). Destruction of IV. 20.

Male head, eye-brows, eye-sockets and pupils prominently shown, nose and chin disproportionately formed, thick parted lips, large applique ears with perforated circular buttons, hair done in braids and decorated with perforations at the base. Tenon broken. Red clay with bright red slip.

30—(KSB XIII. D/115 and D/122-58). Destruction of IV. 20.

Seated female figurine, eyebrows indicated by a thick band of clay, goggle-like eyes, pupils indicated by voids, thick parted lips, applique ears wearing circular buttons with indentations, a circular torque represented by a flat band and indentations. The hair arranged in braids and tied in a knot, with a crest jewel at the centre; both hands bearing bracelets, flexed and placed at the knees; feeding a child at the left breast. It seems to be a representation of Hārīti. Red clay with bright red slip.

CHAPTER SEVEN

# COINS AND SEALS

## COINS

The excavations yielded one hundred and twenty-two coins out of which seventy-six are in a tolerable state of preservation, divisible into the following types :—

I. punch-marked coins, II. uninscribed cast coins, III. inscribed cast coins (coins of the Mitra and Magha kings), and IV. miscellaneous coins.

Seven punch-marked coins occurring from *SP.* III. 10 to III. 14, include four silver coins (Type I A) and three copper coins (Type I B). The uninscribed cast coins have four principal types, viz. (II A) square cast, (II B) round cast, (II C) mythical animal type and (II D) tiny cast. Square cast coins (II A) with elephant before a standard, generally Svastika-topped, on the obverse, and tree in railing, hollow cross, arched hill and taurine, on the reverse, available from II. 5 to III. 16, are represented by twenty-nine well-preserved specimens. The four round cast coins (II B) having an elephant with or without rider on the obverse and arched hill on the reverse, occur from III. 10 to III. 14. The four coins of type (II C) with a mythical animal, partly horse and partly bull, erroneously described as lanky bull, before a standard, on the obverse, and tree in railing, wheel, arched hill, Svastika and Ujjain symbol on the reverse, show more than one type of different denominations and occur from *SP.* III. 12 to *SP.* III. 16. Tiny coins (II D), eighteen in number, have probably tree in railing on the obverse and bull, horse or elephant on the reverse. They were discovered from *SP.* III. 12 to IV. 20. Out of the ten coins of the Mitra kings (Type IIIA), four are from III. 15, five from III. 16 and one from a post-structural pit. The four Magha coins (Type III B) belong to *SP.* IV. 20.

The square uninscribed cast coins, with their uniform distribution in all the structural periods from II. 5 to III. 10, antedate the first appearance of punch-

marked coins whose earliest occurrence is in *SP.* III. 10. From their frequent association with silver punch-marked coins, it has been generally assumed that these uninscribed cast coins are of the same date.[1] But the evidence of these excavations suggests that cast copper coins constituted the currency of the town as in Vidiśā[2] and Ujjain[3], much before the introduction of silver money. The absence of silver coins in the earlier levels may be accidental and further work in the Gangetic Valley alone can establish the prior antiquity of cast copper coins over punch-marked silver ones. The evidence furnished by these excavations is significant and the priority in origin of punch-marked coins can now no longer be taken for granted. There is no doubt, however, that these copper coins remained in circulation along with silver and copper punch-marked coins.

Copper coins of many types and in various submultiples like Viṁśatika, Ardha and Pāda Viṁśatika, Kārṣāpaṇa, Māṣa, Kākiṇī, Ardha Kākiṇī are known to Kauṭilya, Pāṇini, the Tripiṭaka, the Jātakas and the Śrauta Sūtras.[4] The combined literary evidence, thus, clearly attests the existence of copper coins centuries before these works were compiled. The beginning of coinage can be placed on the basis of the literary data, corroborated by the evidence furnished by these excavations, in the early centuries of the first millennium B. C.

Selected specimens are described below (Pls. 48 and 49) :

*I—Punch-marked*

*Type I A—Silver*

1—(KSB XIII A/33-59). III. 10.

Square, 17 mm. x 17 mm., wt. 40 grs.
Obv : Sun, Ṣaḍaracakra, dog above mountain, bull and taurine.
Rev : Plain.

2—(KSB XIII. A/12-59). III. 10.

Irregular rectangular, 12 mm. x 20 mm., wt. 49 grs.
Obv : Sun, Ṣaḍaracakra, bull, arched hill, serpent and trident.
Rev : Sun, tree, wheel with spokes, taurine and Indrayaṣṭi.

1. Allan, C.C.A.I., p. lxxvii.
2. Bhandarkar, D. R., A. I. N., p. 85.
3. Altekar, A. S., J.N.S.I. (1953), vol. XV. pt. I, p. 26.
4. Agrawala, V. S., India as Known to Pāṇini, p. 471.
   Altekar, A. S., J.N.S.I. (1953), vol. XV. pt. I, pp. 34 ff.
   Ibid, pp. 25 ff.
   Bhandarkar D. R., A.I.N., pp. 75 ff.

3—(KSB XIII. A/43-59). III. 10.

Fragment of an irregular rectangular coin, 11 mm. x 16 mm., wt. 36 grs.
Obv : Traces of hill, standard and taurine (of Ṣaḍaracakra).
Rev : Blurred.

4—(KSB XIII. A/1-59). III. 14.

Round, diam. 12 mm., wt. 50 grs.
Obv : Sun, Ṣaḍaracakra (?), arched hill, taurine and rabbit within crescent.
Rev : Taxila symbol.

*Type I B—Copper*

5—(KSB XIII. A/50-58). III. 10.

Oval, diam. 22 mm., wt. 25 grs.
Obv : Sun, Ṣaḍaracakra, dog above arched hill, bull and elephant (?).
Rev : Leafy tree in railing, taurine, arched hill, pellet surrounded by dots.
Cf : Allan, C.C A.I., Cl. 6, Gr. III., Var. 'c', (Silver) Pl. VII. 16; J.A.S.B. XXX (1934) Pl. XIV. 54.

6—(KSB XIII. A/46-58). III. 10.

Fragment—irregular shape, wt. 31 grs.
Obv : Sun, Ṣaḍaracakra, crescent on hill (?) and caduceus.
Rev : Blurred.

7—(KSB XIII. A/41-58). III. 14.

Fragment of a rectangular coin, 13 mm. x 11 mm., wt. 43 grs.
Obv : Ṣaḍaracakra, crescent on hill and other indistinct symbols.
Rev : Arched hill.

*II—Uninscribed cast coins—Copper*

*Type II A—Square*

8—(KSB XIII. A/35-58). III. 14.

Square, 15 mm. x 15 mm., wt. 52 grs.
Obv : Elephant to left, taurine, Svastika and standard.
Rev : Tree in railing, hollow cross, crescent on hill and taurine.

9—(KSB XIII A/24-58). IV. 19.

Square, 15 mm. x 15 mm., wt. 60 grs.
Obv : Elephant to left, taurine, Svastika and standard.
Rev : Tree in railing, hollow cross, crescent on hill and taurine

*Type II B—Circular*

10—(KSB XIII A/38-58). III. 10.

Circular, diam. 14 mm., wt. 20 grs.
Obv : Walking elephant.
Rev : Crescent on hill.
Cf : Allan, C.C.A.I., Uninscribed cast coins, Var. 'q,'. Pl. XI. 25.

11—(KSB XIII. A/73-58). III. 14.

Circular, diam. 14 mm., wt. 30 grs.
Obv : Elephant.
Rev : Crescent on hill.
Cf : Allan , C.C.A.I. Uninscribed cast coins, Var. 'q', Pl. XI. 25.

12—(KSB XIII. A/42-58). III. 14.

Circular, diam. 14 mm., wt. 22 grs.
Obv : Walking elephant with a rider.
Rev : Crescent on hill, lower two arches joined.
Cf : Allan, C.C A I., Var. 'p'., Pl. XI. 23, p. 29.

*Type II C—Mythical animal (Lanky bull ?)*

13—(KSB XIII. A/35-59). III. 13.

Irregular, round, diam. 26 mm., wt. 96 grs.
Obv : Animal to left, standard, above indistinct object looking like standing figure.
Rev : Leafy tree in railing, wheel, arched hill, Svastika and Ujjain symbol.
Cf : Allan, C.C.A.I., Tribal coins—Kauśāmbī, Var. 'a', Pl. XXI. 1.

14—(KSB XIII. A/16-58). IV. 16.

Rectangular, 13 mm. x 9 mm., wt. 14 grs.
Obv : Animal to left before standard.
Rev : Tree in railing, four dots, Svastika and inverted taurine.

15—(KSB XIII. A/18-58). IV. 24.

Square, 12 mm. x 12 mm., wt. 20 grs.
Obv : Animal to left before standard.
Rev : Hollow cross, tree in railing, Ujjain symbol.

*Type II D—Tiny coins*

16 (KSB XIII. A/36-58). III. 12.

Fragment of a rectangular coin, 10 mm. x 11 mm., wt. 17 grs.
Obv : Elephant to left facing standard, ladder (?) below.
Rev : Tree in railing, four circles.

17—(KSB XIII. A/36-59). III. 13.

Irregular rectangular, 9 mm. x 8 mm., wt. 17 grs.
Obv : Ujjain symbol (?).
Rev : Saddled horse to left

18—(KSB XIII. A/19-58). III. 16.

Circular, diam. 8 mm., wt. 10 grs.
Obv : Plain.
Rev : Bull to right, four circles conjoined.

19—(KSB XIII. A/65-58). III. 16.

Circular, diam. 12 mm., wt. 23 grs.
Obv : Indistinct symbol.
Rev : Bull to left.

20—(KSB XIII. A/21-59). IV. 17.

Circular, diam. 8 mm., wt. 7 grs.
Obv : Four circles.
Rev : Blurred animal (?).

21—(KSB XIII. A/13-58). IV. 20.

Circular, diam. 9 mm., wt. 10 grs.
Obv : Blurred.
Rev : Animal, probably horse (?).

*III—Inscribed cast coins—Copper*

*Type* III *A—Mitra coins*

22—(KSB XIII. A/38-59). III. 15.

Circular, diam. 17 mm., wt. 80 grs.
Obv : Indistinct symbols, "Ma" in incuse.
Rev : Blurred.

23—(KSB XIII. A/37-58). III. 15.

Irregular circular, diam. 14 mm., wt. 32 grs.
Obv : Blurred legend.
Rev : Blurred animal.

24—(KSB XIII. A/64-58). III. 15.

Circular, diam. 17 mm., wt. 65 grs.
Obv : Blurred.
Rev : Tree in railing, one indistinct symbol, legend Gho Ṣa Sa.
Cf : Cunningham, C.A.I., Pl. V. fig. 14.

State Museum
LUCKNOW.



25—(KSB XIII. A/14-58). III. 16.

Rectangular, 14 mm. x 12 mm., wt. 33 grs.
Obv : Horse to right before standard, legend above Sa ta ma ti.
Rev : Elephant to right before standard, taurine on right and Ujjain symbol above.
Cf : Cunningham, C.A.I., Pl. V. fig. 8.

26—(KSB XIII. A/4-58). Destruction of III. 16.

Square, 13 mm. x 13 mm., wt. 29 grs.
Obv : Elephant to left before indistinct symbol, probably pillar, illegible legend Sa ta ma ta (?).
Rev : Tree in railing, Indrayaṣṭi, Ujjain symbol.

27—(KSB XIII. A/22-58). Post-structural pit.

Irregular rectangular, 15 mm. x 12 mm., wt. 23 grs.
Obv : Legend Ta Ma above ladder.
Rev : Blurred.

*Type III B—Magha coins*

28—(KSB XIII. A/7-58). IV. 20 or IV. 21.

Rectangular, 20 mm. x 16 mm., wt. 58 grs.
Obv : Legend within dotted border Śi Va Ma
Rev : Completely blurred, probably bull to left.

29—(KSB XIII. A/13-59). IV. 20.

Circular, diam. 14 mm., wt. 30 grs.
Obv : Tree in railing, legend Va Ma.
Rev : Standing bull.

## SEALINGS

Three sealings with identical motifs and inscriptions were recovered during the excavations. Two of them belong to III. 16 and the third one comes from the destruction of III. 16. The motif appears to be a representation of some edifice divided by two walls into three compartments with an inscription below in the Śuṅga characters reading Sa Da Va Sa Ma. Of the two sealings illustrated here Pl. 49. no. 1 (B/2-59) is slightly earlier. The first, fourth and fifth letters in both the sealings, Sa Sa Ma are nearly identical. Letter Sa is similar to letter Sa in the inscription of Dhanabhūti from Bhārhut.[1] The upper part of Ma is still semi-circular. Letters Da and Va in no. 2

1. Bühler, Indische Palaeographie (Strassburg, 1896), Tafel II.

(B/2-60) have angular forms as in the case of the Bhārhut inscription. In B/2-59, however, Da still retains, to some extent, an earlier round-backed form and Va has a clear round base as against the markedly triangular base of letter Va in B/2-60. B/2-60, therefore, is of the same period as the Bhārhut inscription and B/2-59 is slightly earlier. On Paleographic grounds they are to be assigned to a period between c. 150-50 B. C.

## CHAPTER EIGHT

# THE ŚYENACITI OF THE PURUṢAMEDHA

### I. THE ARCHAEOLOGICAL EVIDENCE OF THE ALTAR

*Situation*

The altar is situated near the eastern gate, at the foot of the defences on the outer side (Pl. 12), in an enclosure formed by the revetment of Rampart 3 and its return wall (Wall 15), now available in a very limited area, and is contemporary with them. The revetment and the return wall meet at a point which is in close alignment with the spine of the bird-shaped altar.

*General Lay-out and Shape*

The altar has been piled up in the shape of a flying bird with its face in the south-eastern direction (Pl. 28, Fig. 16). The head, body, wings and tail have been represented by the arrangement of bricks on a specially prepared site. The shoulders are slightly raised and the head and the tail are slightly tapering. The right wing is fairly long. It is curved in the natural way and is only half-spread. The left one has collapsed and is also partly washed out. On the head only one course of bricks at the bottom is available. The tail is feathered at the start and is of natural shape. Part of the body, part of the left wing, neck and the head and also the tail were destroyed by a later robbing, marked in the Section (Fig. 17) as Pit 7.

*The Initial Stages of Construction*

The initial stages in the building of the altar comprised the digging of a pit and the preparation of the site.

There is a clear evidence of digging a pit unequal in depth in different areas and the deepest in the centre and below the tail. The width of the pit in the centre at the deepest point is 6 ft. 10 ins. It was built in three stages as is indicated by

the lines of the pit on the Section and is almost cylindrical in shape. This is the picture on the Section running east-west. The same picture is revealed on the Section running north-south. Below the tail also, the pit is practically of the same depth.

*Evidence of the Earliest Rite Performed in connection with the Building of the Altar*

A bed, approximately 4 ins. to 6 ins. in thickness of gritty loose earth with gravel, was prepared on which a bone no. 229 of *Bos Indicus Linn* (the Domestic humped cattle or Zebu of India)[1] is placed on sherds at the bottom of the central pit towards its right (Pl. 31 A). It was covered with a thin layer of gravel.

*Piling of Vedikā No.* 4 (*Pls.* 30 A and B)

On the levelled surface to the right of this pit, another pit, square in plan, measuring approximately 5 ft. 3.5 ins. was dug to a depth of about 1 ft. The bricks of different shapes and sizes, into which they were cut before baking, were placed inside it. The largest brick measures 19.5 ins. × 11.5 ins. It is placed in a slanting way. The bricks are triangular, rectangular, five-sided and six-sided. There is a good number of clod-bricks also. The number of bricks is about 48 of which the larger bricks are about 17.

The bricks of the Vedikā were covered with fine sand about 3 ins. in thickness. From the shape, size, colour and placing of the bricks, it is clear that they were laid here for a special purpose, as such bricks could not have been used in an ordinary construction.

The outermost point of the right wing constructed afterwards at a raised level, is in the same plumb with the outer or western side of this Vedikā. To the east of the Vedikā and between it and the central pit described above, there is a circular pit lined with bricks. Three bowls marked nos. 1, 2 and 3 on the plan and filled evidently with sacrificial material, are placed on its circumference below the junction of the body and the tail, on the southern extremity of the tail and in the middle of the eastern side of the Vedikā no. 4. This pit has a radius of 4 ft. 5 ins. and is full of ash, charcoal and charred grains. Only a part of the pit could be exposed without dismantling the bricks piled to form the body, the right wing and the tail of the bird-shaped altar.

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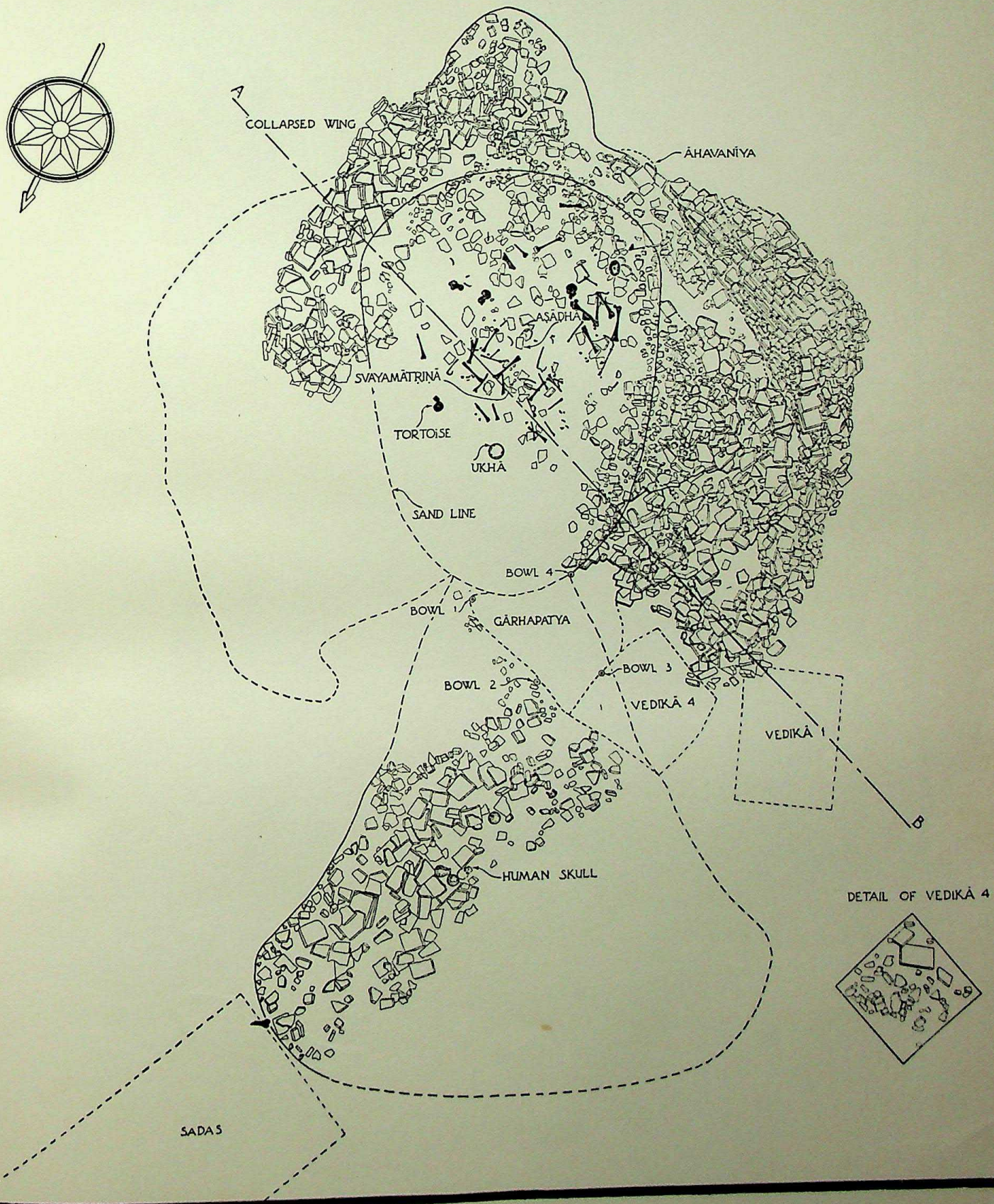
1. Information from Shri Bhola Nath, Zoologist, Zoological Survey of India.

# KAUŚĀMBĪ 1957-59

SCALE OF 2 1 0 1 2 4 6 8 FEET

SCALE OF 0 1 2 METRES

## THE SCHEMATIC PLAN OF THE ŚYENA-CITI OF THE PURUṢAMEDHA



# KAUŚĀMBĪ 1957-59

## SECTION ACROSS ŚYENA-CITI ON A-B

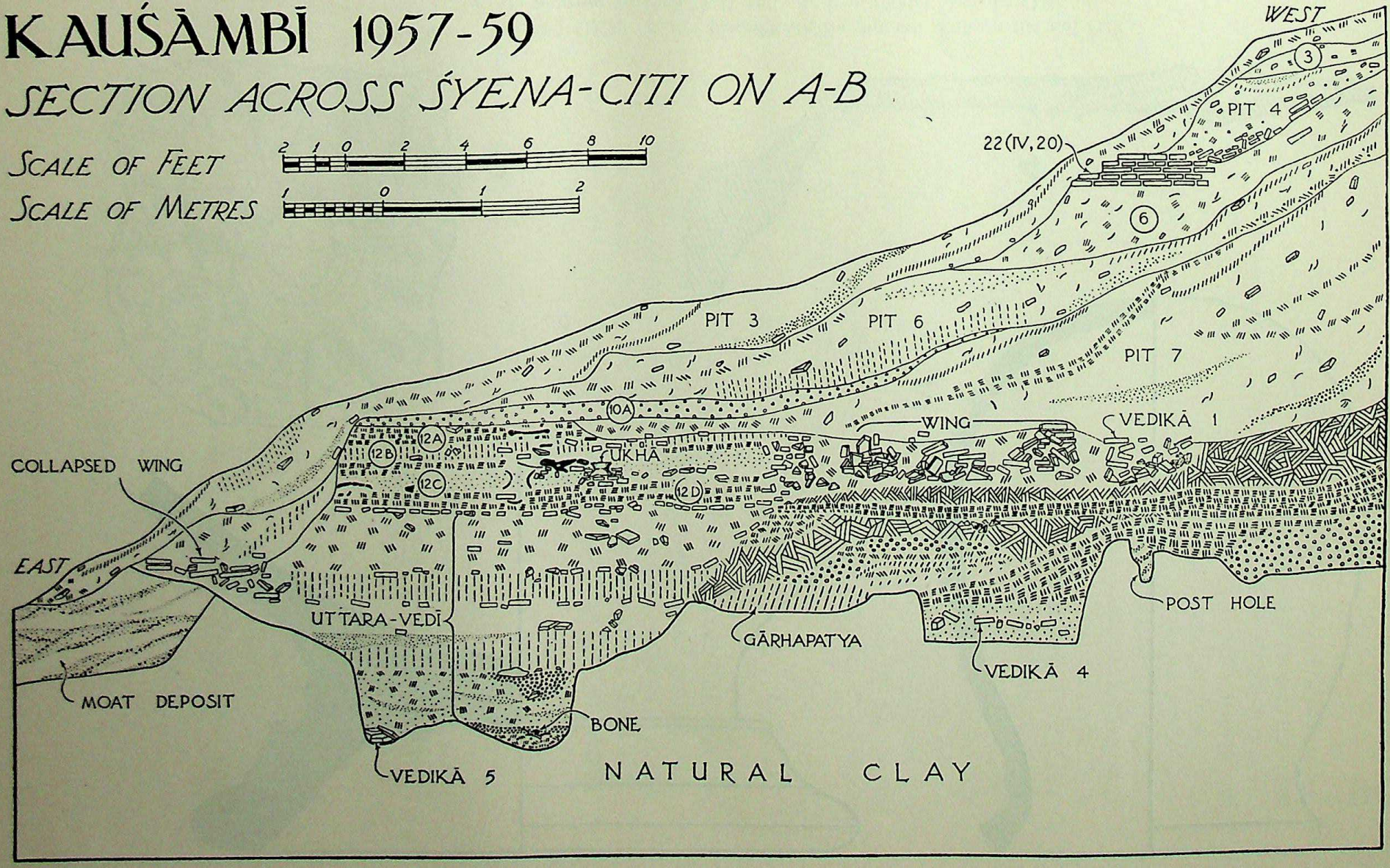
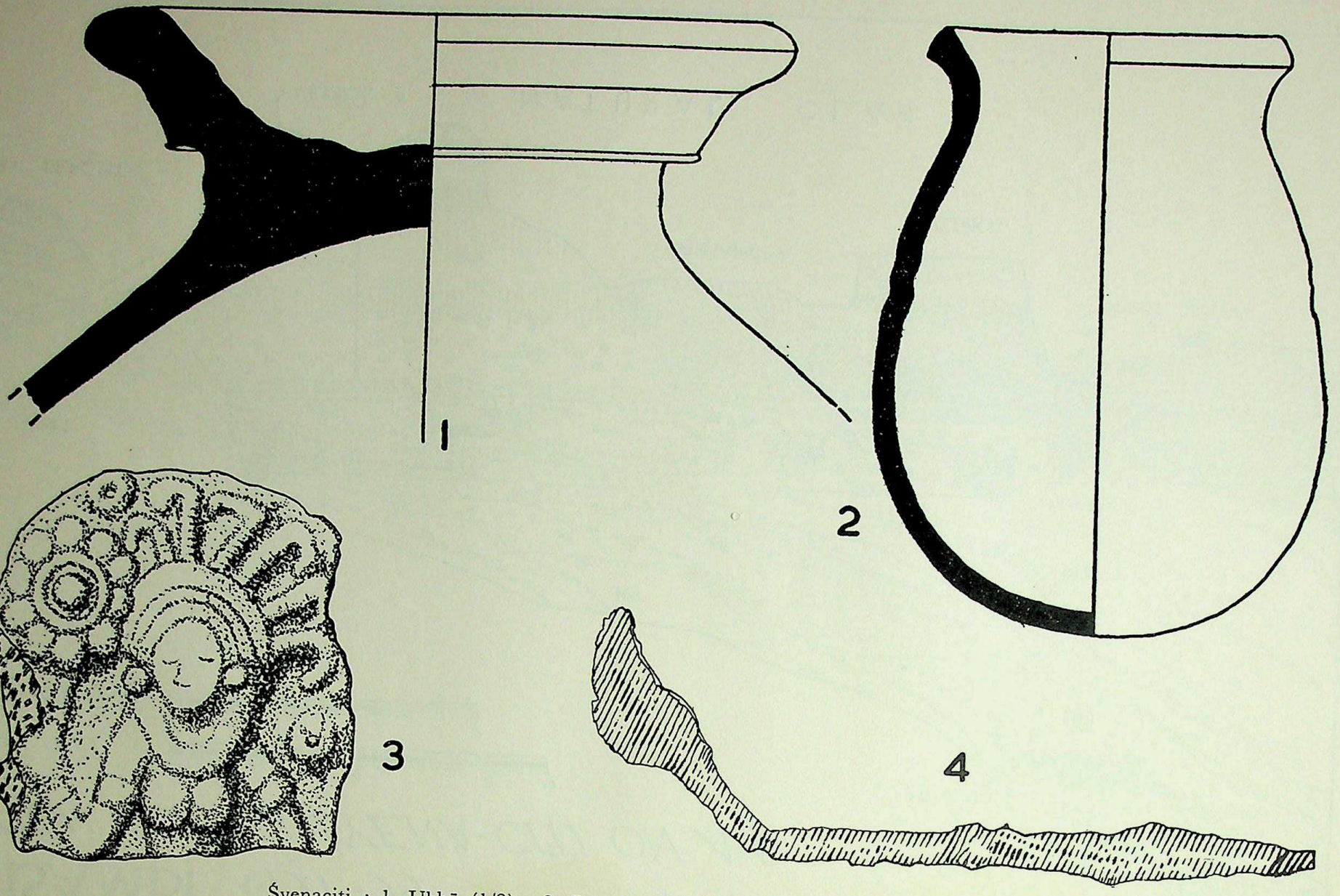



FIG. 17




Śyenaciti : 1. Ukhā (1/2), 2. Pot placed with the human skull on the tail (1/2), 3. Terracotta figurine—sinīvālī (1/1) and 4. Iron model of snake (1/1)

The centre of the circle mentioned above must have occupied a key position in the building of the altar. This may be understood from the observed facts of the plan that Bowl no. 2, the centre of the circle and the point just below the inner joint-spot of the right wing and the body of the bird and the western side of another sacrificial pit below the shoulder, all lie on a straight line. The radius of the circle and the length of this straight line from the centre to the inner joint-point of the wing bear the ratio of one to four. This very straight line, when extended towards the tail, passes through a point above which a human skull (no. 208, Pl. 33 B) in association with pots is placed on the tail. It is significant to notice that the innermost wing lies at a distance of 13 ft. 3 ins. from the centre of the circle. The head of the bird-shaped altar is 13 ft. 3 ins. from the centre of the body. From the centre of the circle, the point just below a cylindrical post-hole (1 ft. 6 ins. deep and 9 ins. wide at the top and 4 ins. at the bottom) and the central kankar nodule in the first layer lie at a distance of 11 ft. 6 ins. (west) and 10 ft. (south) respectively. An unlined pit below the right shoulder of the bird, full of ash and charcoal, in the same line as the centre of the Gārhapatya and the inner joint-point of the right wing and the body, has also been discovered.

*The Mound within the Area of the Body* (Pls. 29 and 30 A)

After this a mound was piled up in the middle of the area of the body by heaping gravel, sandy earth, gritty material with large stones and pebbles, clay and loose earth. The materials were used deliberately and the mixture was not haphazard. The maximum height of the mound (Uttaravedi) is about 8 ft. Some bricks were also laid in course of raising the mound. They are mostly clod-bricks but some of them are especially red also.

*The Packing below the Tail and the Wings*

The packing below the tail consists of sand, grit, gravel, loose earth and clay. The maximum depth of the packing on which the tail and the wings of the bird-shaped altar were built afterwards is 4 ft. 10 ins.

*Levelling of the Pit*

At a later stage the whole area was made level with the central mound by spreading soft and well-weeded clay. Its distinctive colour and composition enabled the excavators to demarcate very clearly the limits of the sacrificial area. The

bricks of the beak and tail are placed 4 ft. 10 ins. above the bottom of the pit. It is at this level that the first layer of clod-bricks is laid down in the central mound.

*Dimensions of the Altar*

After filling the pit and preparing the ground, the altar in the shape of a flying bird was constructed. The total length from beak to tail is 49 ft. 8 ins. and the width, approximately, 33 ft. 6 ins., the ratio being three to two. The length and width of the body are approximately 19 ft. 6 ins. and 13 ft. respectively. The width of the body at the shoulders is 14 ft. 3 ins. The span of the right wing, which alone is fully intact, measures 9 ft. 10 ins. The right wing has three divisions—the outer, middle and the inner, measuring 4 ft. 7.5 ins., 2 ft. and 3 ft. 9 ins. respectively. The divisions are clearly observed in the plan. The beak and neck measure 7 ft. 7 ins. and 22 ft. 6.5 ins. respectively.

*The Body*

The shape of the body is elliptical and is demarcated from the wings, head and tail by a layer of sand, 6 ins. in thickness, marked 12 C in the Section, which was spread over Layer 1 (12 D in the Section). The body consists of five layers of bricks and bones with specially prepared mud-mortar intervening between them. With the exception of a few bones placed all round the body and a human skull on the tail, the rest of the skeletal material is deposited in the different layers of the body marked 12 A, 12 B and 12 D in the Section.

*Formation of the Right Wing* (Pl. 27 A)

The wing, as already pointed out, has three divisions. The outer division joins the body at the shoulder, and at this junction bricks are placed vertically. In the outer wings, from the shoulders right up to the cross-spine, bricks of natural shape and size are laid down upon one another into courses almost similar to those of a regular structure. The top courses are slightly tilted and disjointed on account of subsequent robbing in the area. At the point where the cross-spine touches the inner side of the outer wing, there is a complex knob of bricks of which sixteen are intact, and sixteen courses of bricks are visible between this knob and the shoulder joint.

On the other side of the knob down the wing, there are fifteen courses of bricks up to a distance of 6 ft. 4 ins. At the end of the outer wing, the process

of building changes as there are no regular courses of bricks and the piling has been done with a view to represent its feathers.

The largest brick of the outer wing measures 18 ins. × 11 ins. and one of the smallest, 3.5 ins. × 3 ins. The bricks are mostly quadrangular and rectangular. At the junction of the outer wing and the shoulder, the bricks are so laid as to form a return wall which joined the bricks laid horizontally in the south-western end of the body, and this joint was supported by a cluster of bricks placed vertically.

The Middle part of the Wing—There are two bowls placed in inverted position, one approximately in the central part of the middle wing and the other towards its lower side. The bricks of this part, cut to different shapes before baking, are triangular, rectangular and pentagonal, mostly measuring 11 ins. × 7 ins. approximately.

The Inner part of the Wing—The bricks of the inner part are mostly small, measuring 10 ins. × 6 ins., 5 ins. × 2.75 ins., 4 ins. × 4.5 ins. etc. The three sides of one of the triangular bricks are 3 ins., 4 ins. and 4.5 ins. The inner part of the wing and the body are separated by a narrow gap throughout. There are 10 special bricks at the junction of the body and the inner wing on the cross-spine. Bowl no. 4 on the plan is placed in an inverted position at the junction of the body and the lower end of the inner part of the wing.

*The Left Wing*

The left wing has collapsed and sunk down and slightly moved from its original position. However, the remaining bricks suggest that it was the counterpart of the right wing.

It is significant to notice that there are no special marks on the bricks of the wings.

*The Remaining Parts of the Altar*

The narrow head and beak simulate the natural bird. Some bricks bear special marks (particularly marks like horse-shoe). This portion of the body furnishes the clearest evidence that the method adopted in construction deliberately avoided the normal building method of placing one course of bricks upon another. The bricks are piled on edge or in slanting position and the

effect of all this is that the altar looks like a pile of bricks rather than a building (Pl. 28). But it is clear that the piling of bricks is rigorously governed by special rules of ritual and the number of bricks on the two sides of the spinal line running north-south are piled in perfect symmetry so that for every brick on one side there is a corresponding one on the other.

The tail is long and the small triangular bricks at its end are arranged with their bases on the outer edge so as to give the appearance of a flying bird.

Human skull no. 208 (Pl. 33 B) in association with pots has been placed on the tail (Pl. 33 A). The pots, belonging to a type with a triangular externally thickened rim, short inconspicuous neck and pear-shaped body, were very common in the third-first century B.C. They were laid on the sides around the skull and one was placed in an inverted position. (Fig. 18, 2)

On the northern side of the tail is a large platform mentioned as *Sadas* in the plan, measuring 39 ft. 6.5 ins. × 8 ft. and connected with the end of the tail by a bone. The bricks of the *Sadas* also are especially red and marked with lines similar to those of the body.

*Layer I*

Having raised the mound to a height of 8 ft. from the bottom, the rest of the area on which, later on, the wings were built, was made level with the central mound by heaping gravel, earth, sand and ash. Then on the central platform a course of bricks was laid, which was confined only to the body. The system of the piling of bricks to form the wings followed an entirely different pattern, as already described. In course of making this layer of bricks, specially prepared and weeded mud, distinctive in colour and composition, was used, which assumed a cement-like hardness, when dried. The first layer was covered with sand (Pl. 27 B) sealing the objects noted below :—

(1) *The Kankar Nodule* (*Pls. 29 and 32 B*)—A kankar nodule with small cavities, enclosed by a circle of 10 bricks, was placed just at the centre of the body, marked 12 D in the Section. In the course of the excavations, the plan of this bird-shaped altar was drawn with the help of plane table and the centre was noted first on paper and then the sand deposit on the first layer of the body was removed. This kankar nodule was discovered, exactly at the point which conformed to the centre of the plan of the body, prepared by the draftsmen.

(2) *The Offering-Stand* (*Pl.* 32 *A* Fig 18,1)—With its archetype in the proto-historic dish-on-stand and completely unknown to the pottery traditions of the Gangetic Valley in the historical period, the fire-pan is placed at a distance of 2 ft. 11 ins. from the centre towards the north and its nearest distance from the main spine is about one foot to the east. Evidently, the shape has been determined by rigid ritual formulas. The prominent features of this offering-stand are a short stem, a broad base and a dish at the top with a flat and thick rim, the maximum thickness being .75 ins. There is a marked carination at the junction of the dish and the stand, made prominent by a chord. Its total available height is approximately 5.25 ins. The dish is approximately 9 ins. or a *prādeśa* wide at the top with a depth of 1.75 ins. It is very sturdy, strong and thick in section, the minimum being 3/8 ins., made of clay containing gritty and organic material like wood, and well-fired with a red slip applied to the surface. It was placed on a platform of bricks on which there was a layer of sand and its base was covered with clod-bricks. Traces of some sacrificial substance are still visible at the bottom of the dish which was finally covered with sand.

(3) *The Terracotta Female Figurine* (*Pl.* 46, no. 14; Fig 18,3)—A mould-made female terracotta figurine has been found just near the offering-stand. The hair arranged in six visible braids, to the ends of which are attached objects like *triśūla*, *aṅkuśa* etc. is covered with a head-gear decorated with triple pearl-strings forming a semi-circle from ear to ear. She wears ear ornaments, a garland and armlets and the upraised right hand is holding the stem of a full-blown lotus. The type was popular in the Gangetic Valley in the 2nd-1st century B.C.

(4) *Bricks*—The most prominent brick no. 18 (Pl. 31 B) has been placed at a distance of 1 ft. 9 ins. from the central kankar nodule towards the front. It is trapezoid in shape, two sides of which measure 3 ins. and the other two 7.5 ins. and 4.5 ins. respectively with a thickness of about 2 ins. It was prepared from clay in which, besides other materials, bone pieces were also mixed. The burnt texture of a bone peeps out from one side of the brick. It is prominently red—deep-red on one side on account of the high percentage of iron dust in it. The most prominent feature of the brick is an engraving on it depicting a man tied to a post with the neck bent forward, the two legs flexed and the arm hanging downwards. The victim is tied with a rope which passes probably thrice round the shoulder, chest and part of the back with its loose ends shown below the shoulders. The instrument with which the neck is being severed is also shown. The brick is also marked with three lines.

(5) *Other Special Bricks*—The central kankar nodule (no. 1/5) was encircled by 10 special bricks (nos. 3/5 to 12/5) of deep-red colour. The lines on some of them are clear and they are three in number. These bricks with line-marks are arranged in a definite pattern forming a circle round the central nodule (Pl. 32 B). An animal bone (no. 12) has also been arranged near the cross-spine along with the bricks forming the circle.

There were thirty special bricks (24/5 to 30/5; 44/5 to 53/5; 54/5 to 63/5), arranged in rows of ten on each of the three diagonals of the body. The bricks of the north-eastern diagonal are washed out. The bricks are normally marked with curved lines, 'V' shapes and dots made by fingers. The bricks are of various shapes and sizes and some of them have two colours — red and deep-red. There are five special bricks in a row (34/5 to 38/5) on the frontal fringe and five (39/5 to 43/5) on the right fringe of the body, distinguished by their colour. The bricks of the two other fringes are washed out. A number of other bricks have also been placed in this layer.

(6) *Bones*—The total number of bones arranged in association with these bricks in this layer is 37. Bone no. 12, as already noted, has been placed in association with the bricks forming a circle round the centre. The most prominent bones are nos. 228 (a horse skull), 211 and 212 (fragments of a bone of an elephant—Pl. 34 A)*, 213 (tortoise—Pl. 29), 227 (lower jaw of a pig found on the fringe outside the sacrificial altar), 227 A (Indian humped cattle)* and 32 (domestic goat—Pl. 35 A)*. No. 33 is a human bone and nos. 210, 210 A, 210 B and 210 C have tentatively been identified as bones of bull, horse, ram and he-goat respectively. An iron model of a snake has also been recovered from this layer (Fig 18,4).

The entire Layer I was then sealed by a layer of fine sand, 6 ins. in thickness, seen clearly in the Section, marked 12 C (Fig. 17). It is to be noted that the sand was only deposited on the body and in plan closely followed its shape. There was no trace of it on the wings, head and tail.

### *Layer II*

Layer II (12 B in the Section), having a maximum thickness of 7 ins. and a minimum of 5 ins., was immediately above the sand layer. The most pro-

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*Information from Shri Bhola Nath.

State Museum,
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minent feature of this layer is the placing of bone no. 201 (Pl. 35 B). It is a jaw-bone identified as fragment of right ramus mandible with third molar tooth of *Bos Bubalis* (the Indian domestic buffalo)*. It was placed in the centre directly above the central kankar nodule of Layer I, set within a frame-work of bricks, with the spine passing through its bend.

This layer has yielded only a few other bones which are all of animals (nos. 202, 203, 204 and 205).

Tewenty bricks, in five sets of four each, are arranged round the central jaw (brick nos. 1/3, 2/3, 3/3, 4/3; 5/3, 6/3, 7/3, 8/3; 9/3, 10/3, 11/3, 12/3; 13/3, 14/3, 15/3, 16/3; 17/3, 18/3, 19/3, 20/3). The bricks are especially red and have a number of line-marks, 'V' shapes, curves, dots etc. Some of them are small bricks (4/3, 8/3, 10/3, 12/3, 16/3, 20/3 etc).

The other special bricks are, a row of 5 along the right fringe of the body (33/3, 36/3, 41/3, 42/3, 43/3), another of 4 along the frontal fringe (113/3, 114/3, 115/3, 116/3); and a third one of only 3 along the left fringe (90/3, 91/3, 94/3).

All these may be recognised from their especially red colour, and from a number of line-marks mentioned above. Besides these, there are a number of other bricks also on this layer. The bricks are of various shapes — triangular, rectangular, oblong, square etc.

*Layer III* (12 A *in the Section*)

*Bones*—The maximum thickness of Layer III is 9 ins. and the minimum 6 ins. This layer has yielded the largest number of bones from the area of the body (Pl. 26 A). There are three complete human skulls pieces (nos. 1, 106 and 117) and ten skull (nos. 82 A, 99, 99 A, 122, 125, 125 A, B and C, 126 and 191). The fragments were either of different skulls or, if they belonged to one only, they were placed deliberately in the different areas of the body. It appears that these skulls were carefully placed in brick-enclosures as is very clearly marked in the case of Skull no. 1.

*Skull No.* 1 (*Pl.* 37 A)—It is placed to the south of the central brick at a distance of 7 ft. 6 ins. and is surrounded by brick nos. 147/2 to 155/2. On the western side, brick no. 148/2 was placed with its corner quite close to the

* Information from Shri Bhola Nath.

side of the skull. Another brick no. 147/2 was placed on the north-western side with its corner almost touching the jaw and one of its sides approaching a corner of the previous brick. The other bricks were also arranged round the skull and all of them are sloping towards it. An animal bone was also placed on the southern side of the skull just near the vault. The space, between the skull, the bone and the bricks, was filled with mud, mortar and clod-brick. Finally, a course of bricks was laid covering the skull and the bone. This arrangement clearly reveals a definite and deliberate procedure.

Skull no. 106, lying at a distance of 1 ft. 9 ins. from the centre to the east, has also been placed in association with bricks.

Five human jaws were discovered in this layer from the area of the body, marked nos. 112, 137, 154, 161 and 182. Jaw nos. 112 (Pl. 38 A) and 137 are placed at a distance of 10 ft. 8 ins. from each other and the line connecting them passes through the centre of Skull no. 1. There is evidence that the jaws were carefully set amidst bricks.

Besides, the following bones are also tentatively identified as human bones: 2, 7, 8, 10, 12, 16, 56, 57, 58, 61, 61 A, 61 B, 61 C, 63, 64, 65, 66, 67, 68, 69, 70, 72, 73, 74, 75, 76, 77, 78, 81, 82, 84, 85, 86, 95, 100, 101, 102, 103, 104, 111, 111 A, 113, 114, 115, 116, 118, 119, 120, 123, 135, 143, 149, 150, 152, 153, 159, 163, 180 and 181. They are bones of rib, hip, hand and leg.

There are altogether 234 bones in this layer, some of them having clear incision marks. They have been deliberately set along with the bricks. Sometimes the bones have been so arranged as to form 'V' shapes—bone nos. 56, 61 and 82 form two 'V' shapes joined together (Pl. 36 B). The line-marks on the bricks often resemble the placing of these bones forming 'V' shapes. Some bones were also placed crosswise.

The special bricks in this layer were as follows :—

An especially red brick with a hole was placed at the centre (no. 1/2). At a distance of 1 ft. towards the head, there was another special brick with three 'V' shaped line-marks (no. 2/2). There was a row of red bricks on the frontal fringe of the body (nos. 97/2, 124/2, 125/2, 136/2, 137/2, 141/2, 143/2). A row of three bricks was found on the left fringe (99/2, 100/2 and 101/2), and another of six on the right fringe (103/2, 110/2, 115/2, 118/2, 120/2, and 125/2) All

these bricks, triangular, rectangular and of other shapes, are marked with triple 'V' shapes, curves, straight lines, dots etc. A number of other bricks including clod-bricks were also found in this layer.

### *Layers IV and V*

Layers IV and V, destroyed by a subsequent pit and available only in a very small area near the shoulders with 7 ins. and 5 ins. respectively in thickness, have yielded 30 bones only.

Bone no. 3 has tentatively been identified as a human skull piece. Bone no. 24 is a lower human jaw (Pl.38 B). Nos. 4, 5, 9, 20, 38 may also be tentatively identified as human bones. Nos. 23 and 44 are animal bones.

It appears that when all the five layers were made the following bones were placed on the altar :—

Nos. 3, 4, 5, 15, 21, 22, 23, 24, 32, 38, 39, 40, 41, 42, 43, 44, 45, 47, 48, 49, 50, 51, 53, 54 and 56. Some of them were found scattered on the right shoulder and also in the contiguous area of the right wing. It is not possible to determine whether the bones in the area of the right wing are *in situ* or were displaced from the body and thrown on the wing when the site was disturbed by a robbing. The latter seems to be more likely.

## II. THE LITERARY DATA[1]

### *The Agnicayana*

The Agnicayana, a complex and elaborate rite involving the piling of the fire altar, is regarded as obligatory in case of the Mahāvrata and optional in other Soma sacrifices. The ritual texts prescribe various types of the fire altar of which the Suparṇaciti or the Śyenaciti, piled in the form of a flying *Śyena*, is the most important. The flying *Śyena* symbolises the sacrificer's ascent to heaven, which is regarded as the chief object of this rite. A great symbolic and cosmogonic significance has been attached to it. It symbolises the reconstruction and restoration of Prajāpati who, having been sacrificed as the Puruṣa, furnished the material for the creation of the universe in all its parts. The

1. For a fuller discussion of the textual evidence on this chapter, see Part Two, chapters nine and ten.

unique position occupied by this rite in the ritual scheme may very well be understood from the fact that the Ś.B., in the highest flight of thought, declares this rite to include all the important sacrifices like Agnihotra, Darśapūrṇamāsa, Rājasūya, Vājapeya, Aśvamedha etc.

One of the important preliminary ceremonies is the offering of five victims, a man, a horse, a bull, a ram and a he-goat. Their heads are to be built into the altar and the bodies are thrown into water from which the material for building the fire-pan and the bricks of the altar is derived. The clay is solemnly collected with the aid of a horse and an ass, according to the Taittirīya School, and a horse, an ass and a he-goat, according to the Śukla Yajurveda School. Out of this clay, the fire-pan, the *Aṣāḍhā* brick and the three *Viśvajyotis* bricks are prepared first, and then the other bricks.

After the fumigation and other *saṁskāras* of the Ukhā, the first initation ceremony takes place, of which an important element is the offering of an animal cake to Vaiśvānara on twelve pot-sherds. The fire-pan is kept filled with fire from the time of the consecration and is carried about for a year by the sacrificer who performs various other rites, like the striding of Viṣṇu-steps during this period. Then the original Gārhapatya hearth is built with bricks and the ground for the fire altar is prepared by ploughing with the aid of oxen yoked to a plough, made of Udumbara wood, by watering and sowing various kinds of herbs and seeds. Sand is then spread on the Gārhapatya hearth. The mound of the Uttaravedi, with clod-bricks within it, is piled in the middle of the body and is covered with sand. Then the whole body is brought in a level by filling sand which is, however, not spread in the areas of the wings and the tail.

The fire altar is piled in five layers on the Uttaravedi. The first layer contains a lotus-leaf in the centre of the body of the altar, with a gold plate upon it and a gold man on the latter. Then two ladles are placed—one of *Kārṣamarya* in the south and the other of *Udumbara* in the north. The *Svayamātṛṇā* (a kankar nodule or a naturally perforated brick) is placed close to the gold man and then fresh green *dūrvā* grass is placed upon it.. After placing a number of special bricks, the most important brick, *Aṣāḍhā*, is placed and then a live tortoise, mortar and pestle, the Ukhā and the victim's heads respectively. Besides, the Taittirīya School prescribes the head of a snake. In addition to the special bricks, the texts also provide for other bricks in the first layer. Then the body of the altar alone is covered with sand. The same procedure of placing bricks and ultimately covering them with *purīṣa* is followed in respect of each of the

remaining layers also. One naturally perforated brick or kankar nodule is placed at the centre of the body in each of the first, third and fifth layers. A most noteworthy feature is that the parts of human and animal body and bones are often identified with bricks; these bones were placed in stead of and also along with the bricks.

After the fire altar has been constructed, 425 libations made of all sorts of wild plants, are offered to Rudra and his associates. The formal placing of the fire on the altar is carried out with great ceremony. The priest and the sacrificer step on the altar. Then follow a number of libations including 372 libations for Agni. There is also the rite called the yoking of the fire. Offerings are made to minor deties like Anumati, Kuhū, Rākā, Sinīvālī etc. At the end of the final libations there is an offering for Mitra and Varuṇa.

*The Agnicayana as an Evolving Institution*

The rite of the piling of the fire altar presents itself to us as an evolving institution. Fuller details regarding this rite are found in the texts belonging to the Yajurveda. The details suggested in the Saṁhitās increase considerably in the Brāhmaṇas and they acquire enormous complexities both of the nature of addition and variation in the Sūtras. This can very well be illustrated by examining the practice of the sacrifice of the five victims for obtaining the heads intended to be buried in the first layer of the altar and by carefully analysing the number and names of bricks to be used in different layers.

As regards the sacrifice of the five victims, there is reference only to *dvipada* and *catuṣpada* in the Saṁhitās of the Kṛṣṇa and Śukla Yajurveda. In the Brāhmaṇas of these two Schools the complete theory of the five sacrificial victims has been formulated. In the Sūtras the further evolution and growth of this rite may be traced along four lines : first, the increase of details associated with this rite; secondly, the specification of the human victim whose head may be obtained for this purpose; thirdly, the tendency of substitution and option manifest in the Sūtras and fourthly, the complete omission of the practice of obtaining the head of a dead man for twenty-one beans as envisaged by the K. S. B. (XX. 8). Thus, it is clear that the evolutionary process here involves not only addition and elaboration but also omission. Now it is worthwhile to notice the nature of the elements showing evolution and growth with regard to this practice of the sacrifice of the five victims in the Sūtras. The first point is in respect of the increase of ritual details. An example of this is found in the Kāt. Śr. While

the Ś. B. is silent about the way in which the human victim should be sacrificed for obtaining the head, the Kāt. Śr. lays down that he should be slaughtered in an enclosure. The second point relates to the specification of the human victim. In the Brāhmaṇas there is no mention of his caste, but the Baud. Śr. lays down that the head in question should be of a Vaiśya. The other Sūtras, e.g. Kāt. Śr., Āp. Śr., Sat. Śr. and Vaik. Śr., prescribe that it should be of a Vaiśya or a Rājanya. The third point is with regard to the option and substitutes for the heads of the victims. The Brāhmaṇas did not favour the practice of substitutes for the victims. But in the Sūtras of Kṛṣṇa and Śukla Yajurveda there is reference to substitutes also. The question of substitution shall be discussed later on. Here only this much is necessary to keep in view that the scope of substitution is very limited in the Sūtras of the Kṛṣṇa Yajurveda. On the other hand, it appears in a considerably extended form in the Kāt. Śr. where gold and clay models have also been prescribed. However, the general practice was of actually sacrificing the five vicitms for obtaining the heads. This is clearly noticed even in the Kāt. Śr. where we find liberal provision for option and substitution. There is clear reference in this text to the sacrificial slaughter of man in an enclosure. This means that, side by side with the older practice of actual sacrifice of the five victims, the tendency of offering substitutes had also come into existence in the period of the Sūtras and was favoured by certain Śākhās.

Inspite of the fact that the general assumption, on the basis of which rules have been formulated, is of five victims, there is also an indication of a he-goat as a substitute for the heads of the five victims in the T. S. B., Āp. Śr., the texts of the Śukla Yajurveda, and the Śāṅk. Śr. belonging to the R. V. The option is clear in the texts belonging to the Śukla Yajurveda and the Śānk. Śr. But the common use of the term *paśuśīrṣāṇi* (in the plural number) in the T. S. B. indicates that the option was clearly not favoured by this text. But Āp. Śr. of the same school allows all the *mantras* to be used for one victim intended for Vāyu and thus, it clearly recognises the option. In the Vait. Śr. of the A. V. which is a later Sūtra-work, we find the specific reference of laying down the head of only one victim, i.e. *aja* in the first layer of the altar. Here we notice the tendency of modification and simplification in course of the evolution of this rite. Originally, the number of victims offered for obtaining the heads was five, but later on there arose the practice of making a he-goat, offered to Vāyu, as a substitute for all the five animals. This is more marked in the Śukla Yajurveda School and in the Śāṅk. Śr. of the R. V. But even then the practice of the offering of five victims, and not one, continued to be in vogue.

At this stage it is significant to note that, in the first place, the limited reformist tendency of substitution favouring the obviation of the necessity of slaughter of the five victims and, in the second, the sacrifice of only one victim, instead of five, emerged due to the impact of certain socio-religious factors tending to bring about a change in the perspective of values and culminating in the idea of sanctity of and reverence for life, which shall be discussed afterwards.

Thus far, the evolution of the rite of Agnicayana along the practice of sacrifice of the five victims has been noticed. Now the second main aspect of this rite which relates to the names and number of bricks is to be considered. The study of bricks has also thrown valuable light on the gradual evolution and growing complexity of this rite. This is very clearly noticed in the texts of the Kṛṣṇa Yajurveda School. The *mantras* of the T. S. in the context of the first layer can be associated only with 7 bricks. But in the Brāhmaṇa portions of the T. S., K. S. and M. S. references to 7, 9 and 11 brick-names respectively are found. The names increase, on the whole, in the Śrauta Sūtras of Baudhāyana, Āpāstamba and Vaikhānasa where 16, 14 and 13 brick-names occur respectively. New names like *Virāja*, *Sayuja*, *Hiraṇyeṣṭakā*, *Saṁyānī*, and *Maṇḍaleṣṭakā* are coined by Baudhāyana and *Gharmeṣṭakā* by Āpastamba and Vaikhānasa, besides a number of bricks mentioned in the Saṁhitā Brāhmaṇas belonging to the Kṛṣṇa Yajurveda. Baudhāyana prescribes two additional types of bricks, viz. *Sayuja* and *Saṁyānī* for the second layer. A similar tendency is noticeable in respect of the third layer also. Āpastamba and Vaikhānasa prescribe for this layer a type of brick known as *Bhūteṣṭakā* which is conspicuous by its absence in the earlier texts of this school. Vaikhānasa further goes to the extent of prescribing a novel brick known as *Vaikhānasa*, which is evidently after the name of the School. In the fourth layer, besides other variations, Baudhāyana introduces *Sayuja* and *Saṁyānī* bricks. Āpastamba and Vaikhānasa accept the latter but at the same time increase the number from one to two. In case of the fifth layer, new bricks like *Rāṣṭrabhṛt* and *Ajyānī* are introduced by Baudhāyana and *Jīmūta* and *Upaśīvarī* by Āpastamba. Although some uniformity in respect of names and number of bricks is shown by the Śukla Yajurveda School, yet certain variations are also noticed. For instance, Kātyāyana reduces the number of *Chandasyā* bricks from 30, as found in the Ś.B., to 6.

On the whole, it is quite clear that these additions and variations in the scheme of bricks throw ample light on the evolution of this rite. But the process of evolution involves the disappearance of some elements. For example, the bricks called *Vṛṣṭisanī* and *Jyotiṣmatī*, which are indicated in the Saṁhitās and Brāhmaṇas of the Kṛṣṇa Yajurveda for the second and third layers respectively,

continue as such upto the Baud. Śr. but disappear afterwards. Similarly, the brick, called *Spṛt*, is indicated in the Saṁhitās and Brāhmaṇas of the Kṛṣṇa and Śukla Yajurveda for the fourth layer but disappears in the Sūtras afterwards.

*The Social factors*

In tracing the general course of the evolution of this rite, mention may be made of the social factors which tended to determine certain practices. Attention has already been drawn to the growing idea of the sanctity of and reverence for life. The other force was of the caste system. In the Śūtras there is the specification of a man of Rājanya or Vaiśya caste as a victim for obtaining the head. This shows that, due to the growing conception of the order of dignity of the four castes, the Brāhmaṇa was considered to be too noble and the Sūdra as too ignoble to be sacrificed for this purpose. Naturally, the scope of choice was limited to Rājanya and Vaiśya only. Further, in connection with bringing the clay, the horse, the ass and the he-goat, required for the purpose, are equated with Kṣatra (nobility), Vaiśya-Śūdra, and Brāhmaṇa respectively. The arrangement of these animals in coming and going is determined by the status of the caste which each symbolises. "Inasmuch as, in going from here, the horse goes first, therefore the Kṣatriya, going first, is followed by the three other castes; and inasmuch as, in returning from there, the he-goat goes first, therefore the Brāhmaṇa, going first, is followed by the three other castes. And inasmuch as the ass does not go first, either in going from here or in coming back from there, therefore the Brāhmaṇa and Kṣatriya never go behind the Vaiśya and Śūdra : hence they walk thus in order to avoid a confusion between the good and bad. And moreover, he thus encloses these two castes (Vaiśya and Śūdra) on both sides by the priesthood and the nobility, and makes them submissive[1]".

Thus far, a synoptic view of the evolution of this rite has been taken. But the complex process of evolution also shows that though the basic elements of this rite, ever and every where, were the same, schoolwise differences and variations in practice have also arisen.

*The Fundamental Common Elements*

Mention has already been made of the fundamental common elements of this rite which appear in all the schools. Briefly speaking, they are the

1. S. B. E., vol. XLI, pt. III, p. 227.

obtaining of the five heads, the *dīkṣā* ceremony, the preparation of the ground for the fire altar, the preparation and laying down of the Ukhā, the *Aṣāḍhā*, other common bricks and the *Svayamātṛṇā*, the building of the Gārhapatya hearth, the Āhavanīya, and the piling of the altar in five successive layers.

*Differences and Variations in the Practices of the Two Major Schools*

In spite of the fact that the basic features relating to this rite are common to both the major Schools of the Yajurveda, differences between them are also noteworthy. There are certain special features which are exclusive to either of the two major Schools. Thus, in the texts belonging to the Kṛṣṇa Yajurveda the rite of the sacrifice of the five victims occurs along with the recitation of the Sāmidhenī verses after the preparation of the Ukhā, but this appears as the very first rite in the texts of the Śukla Yajurveda School.

In respect of the rite connected with the offering of the five victims also, there are notable differences between the two major Schools. In the texts belonging to the Kṛṣṇa Yajurveda School, the scope of option and substitutes is considerably limited. The substitutes for the heads of man and horse, actually slaughtered in connection with this rite, can be the heads of those two killed in battle or by an arrow-shot or thunderbolt; substitutes for other heads have not been contemplated. But the Kāt. Śr., belonging to the other school, goes to the extent of prescribing gold and clay models as substitutes for the actual heads of all the victims. Thus a liberal tendency is noticeable in the Śukla School. But it is to be borne in mind that the older practice of the actual sacrifice of the victims was also continuing side by side. Further, the practice of placing either the human head or all the heads on the *Valmīkavapā* for the purpose of the restoration of life and treating the human head with beans in order to make it *medhya*[1] or fit for sacrifice, are practices exclusively confined to the texts belonging to the Kṛṣṇa Yajurveda.

The evidence of the Kṛṣṇa Yajurveda School shows that at the time of placing the head in the first layer of the altar seven gold chips were thrust into the organs of breath of the human head. But the Ś.B. and the Kāt. Śr., belonging to the Śukla Yajurveda School, lay down that seven gold chips should be thrust into the organs of breath of each head; if the victim is one only, seven gold

1. The idea of making the heads *medhya* renders untenable the view of Keith that this rite was a building-rite.

chips should be used and not thirty-five. In the texts belonging to the Kṛṣṇa Yajurveda, there is a provision for laying down the head of a snake also in the first layer, a practice which finds no mention in the texts of the Śukla Yajurveda School. Similarly, the Savitṛ offering which is performed, just after the sacrifice of the five victims according to the texts belonging to the Kṛṣṇa Yajurveda, occurs in the texts of the Śukla Yajurveda School after the preparation of the animals for bringing the clay. Only two animals—a horse and an ass—are required for the collection of the clay in the texts of the Kṛṣṇa Yajurveda, whereas in the texts of the other school there are three animals for this purpose—a horse, an ass and a he-goat. Further, according to the texts of the former school, the clay should be brought only on the back of the ass. But the texts of the latter school prescribe that all the animals should be employed for this purpose. Among a number of things to be mixed with the clay of which the Ukhā is made, *Kṛṣṇājinaloma* is prescribed only by the texts of the Kṛṣṇa Yajurveda, whereas iron dust is exclusively confined to the other school. The Ukhā with nine corners for the purpose of *abhicāra* is mentioned only in the texts belonging to the Kṛṣṇa School. The texts of this school prescribe that the *Aṣāḍhā* should be prepared by the Yajamāna, whereas, those of the Śukla School lay down that the wife of the sacrificer should prepare it. The texts of the former provide that the Gārhapatya hearth should be piled up in layers in accordance as the sacrificer piles up the fire altar for the first, second or third time, whereas, the texts of the latter favour the practice of building it only in one layer. Kātyāyana, however, provides for an option that it may be built in three layers also.

The *Apānabhṛt* brick to be used in the first layer of the body is confined to the Kṛṣṇa Yajurveda texts only. Among the bricks of the second layer, the brick named *Vṛṣṭisanī* is confined to the Kṛṣṇa Yajurveda School and the *Vaiśvadevī* to the other school. Among the bricks of the third layer, *Jyotiṣmatis* and *Bṛhatis* are mentioned only in the texts of the Kṛṣṇa Yajurveda School, whereas the name *Chandasyā* occurs for the same bricks in the other school. Among the bricks of the fourth layer, the *Vyuṣṭis* are exclusive to the Kṛṣṇa Yajurveda School. In the fifth layer also a number of bricks like *Sayuja*, *Kṛttikā* and *Vṛṣṭisanī* are confined to this school only.

*Mutual Influences of the Two Schools*

The two major Schools of the Yajurveda were flourishing side by side in the same country and, therefore, it was natural for them to be influenced by the practices of each other. This is noticeable in many cases. The spade for digging

the clay is to be made of bamboo, according to the Brāhmaṇas of both the schools—T. S. B. & Ś. B. But the Śrauta Sūtras of Baudhāyana and Kātyāyana provide for the option of gold spade also. Thus, either one was influenced by the other or both were affected by a common tendency. Similarly, in the Ś.B., belonging to the Śukla School, there was the provision for a preparatory *dīkṣā* consisting of an animal cake to Vaiśvānara on twelve pot-sherds and the real *dīkṣā* performed with a triple offering consisting of a cake to Agniviṣṇu on eleven sherds, one to Vaiśvānara on twelve pot-sherds and a pap for the Ādityas. Baudhāyana, the earlier Sūtrakāra of the Kṛṣṇa Yajurveda School, refers only to the other *dīkṣā* and not to the preparatory one. But later on, Āpastamba, who shows strong influence of the Vājasaneyins, provides for the Paśupurodāśa for Vaiśvānara also, besides the triple offering. Further, Āpastamba borrows the practice of sweeping the Gārhapatya ground with *palāśa* branch from the Vājasaneyins from whom Āpastamba and Vaikhānasa also borrow the practice of watering the ground after ploughing it.

Besides, there are a number of instances to show that brick-names were also borrowed mutually. Thus, in the third layer, *Viśvajyotis* and *Ṛtavyās* occur in the V.S., Ś.B. and Kāt. Śr. Though they do not figure in the Saṁhitās and Brāhmaṇas of the Kṛṣṇa Yajurveda, yet the Sūtrakāras of this School—Baudhāyana, Āpastamba and Vaikhānasa—prescribe them evidently under the influence of the former school. In the context of the fourth layer the two *Ṛtavyās* occur throughout the Saṁhitā, Brāhmaṇa and Sūtra of the Śukla Yajurveda. The Sūtras of the other school have evidently borrowed them from this school, as they are unknown to the Saṁhitās and Brāhmaṇas of the former. In the Śukla School there is simplicity of details, a greater uniformity in the Saṁhitā, Brāhmaṇa and the Sūtra and less amenability to external influences. On the other hand, the tendency of complexity and elaboration is prominently marked in the Sūtras of the Kṛṣṇa Yajurveda; Āpastamba and Vaikhānasa show considerable influence of the Śukla School also.

*Antiquity and Origin of the Rite*

The differentiation in the forms of Agniciti had started as early as the period of the T. S. The Brāhmaṇa portion of this text prescribes as many as ten different types[1] of the fire altar for various purposes. This clearly proves that the rite in its developed form antedates the T.S. This is further borne out

1. See below.

from the fact that even in the T.S., K.S. and M.S. many of the rites, originally connected with the sacrifice, are declared as *utsanna*[1] or obsolescent.[2] Many of its accessories, according to Sāyaṇa,[3] were falling into abeyance due to the complexity of the rite and also due to *pramāda* or negligence and carelessness on the part of the performers of the rite. This further shows that even prior to the period of these Saṁhitās the rite had acquired enormous complexities. Differentiation in practice had already started in various Saṁhitās of the Yajurveda. In fact, the expression of this rite is present in the Puruṣasūkta of the R.V. also.[4] As it has been shown later on, all the essential elements, viz. identification of Puruṣa with Prajāpati, his identification with sky and metres, are implicit in this hymn. The Śānk. Śr., belonging to this school, gives the details of this rite, which the Vait. Śr. of the A.V. also incorporates. The Saṁhitās, Brāhmaṇas and Sūtras of the Yajurveda deal with this rite in great details and with considerable variations. So from the point of view of its great antiquity, the wide acceptance and recognition of this rite by the three Vedic Saṁhitās, e.g. R.V., Y.V. and A.V., and the later literature belonging to them also becomes significant; and this clearly suggests the origin of the rite before the redaction of the Saṁhitās into different schools.

The rite of Agnicayana reflects a multiple origin. There is clear evidence to show that in the very begining it was an independent rite unconnected with the Soma sacrifices and evolved somewhere in the North-Western India.[5] Then at a certain stage it was interlinked with the tradition of the Soma sacrifice. The basic ideas behind this rite are the symbolic idea of the sacrifice of the Primeval Puruṣa by gods and his restoration as expressed in the Puruṣasūkta of the R.V., the primitive ideas of *abhicāra* as a magical means to avert foes,[6] of defence and the appeasement of the wrath of a dreadful deity by the offering[7] of gifts. The very name of this rite, Agnicayana, suggests that the

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1. उत्सन्नयज्ञो वा एष यदग्निः किं वाऽहैतस्य क्रियते किं वा न यद्वै यज्ञस्य क्रियमाणस्यान्तर्यन्ति पूयति। T. S. B. V. 3. 1; K. S. B. XX. 10; M. S. B. III. 2. 9.
2. Keith, H. O. S., vol. XIX, p. 418 fn. 2.
3. अस्मिन्नग्नावनुष्ठेयानामतिबहुलत्वात् सर्वथा प्रमादादिना क्वचित्किञ्चिदङ्गम् उत्सन्नं भवत्येव एतस्याग्नेः सम्बन्धि किंनामाङ्गमनुष्ठितमिति को ज्ञातुं शक्नोति (अह शब्दो निषेधार्थः) सर्वथा ज्ञातुं न शक्नोत्येव, तथा सत्यनुष्ठीयमानस्य यज्ञस्य यदङ्गमन्तर्यन्ति (अन्तरितं कुर्वन्ति) अस्य (यज्ञस्य) एतदङ्ग पूयति नश्यत्येव। Sāyaṇa on T. S., p. 332 f.
4. R. V. X. 90.
5. Cf. Keith, H. O. S., vol. 32, p. 354.
6. See below.
7. See below.

tendency of the Indo-European fire cult which was well-developed in Iran[1] may also have something to do with the composition of this rite.

*Ideas and Tendencies responsible for the Emergence of this Rite*

In the Ś.B., the main authority for the Agnicayana is Śāṇḍilaya[2], whereas, the rest of the sacrificial ritual has been attributed to Yājñavalkya.[3] The other teachers[4], mentioned in connection with the rite, are Turā Kāvaṣeya who performed it on the Kārotī, and Nagnajit Gāndhāra. All these names clearly point to the early connection of this rite with the North-West.

There are a number of references in the ritual texts which throw light on the juxtaposition of this rite with that of the Somayāga. In the Ś.B.[5], it is mentioned that the interlinking of the Adhvara-Karma and the Agni-Karma is brought about by the ceremony of purchasing the Soma. Further, we come across the ceremony called Agni-Yogana or yoking of the fire altar and the Soma sacrifice.[6] In connection with the *dīkṣā* ceremony, Kātyāyana[7] states that there is no contradiction (*virodha*) involved in these two rites. This also throws light on the interlinking and reconciliation of the two rites—the rite of Agni-Karma and that of the Soma.

The entire symbolic and mystic significance of the Agnicayana is contained in a nut-shell in the Puruṣasūkta of the R.V. In this hymn there is the conception that Puruṣa Prajāpati was sacrificed by gods and thus furnished the material for the creation of the universe. He has been identified with metres, sky etc. It was from him that the five animals, man, horse, bull, he-goat and ram, were born at one stage. The fire altar also symbolically represents the reconstruction of the body of Prajāpati and the heads of these very victims are buried in the first layer of the altar. The human head, according to Āp. Śr. and Vaik. Śr., was placed on the Ukhā with the *mantra* "Sahasraśīrṣā puruṣaḥ" etc. which has been taken from the Puruṣasūkta.

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1. Cf. Keith, op. cit., pp. 354, 625 ff.
2. Ś. B. X. 6. 5. 9; cf. Keith, op. cit., p. 354.
3. Cf. Keith, H. O. S., vol. 32, p. 354.
4. Ibid, loc. cit.; Ś. B. X. 6. 5. 9.
5. Ś. B. VII. 3.1. 2-4.
6. Ś.B. IX. 4. 4. 1 ff.
7. Kāt. Śr. XVI. 176.

Now the next idea involved in the texture and composition of this rite, i.e. the idea of *abhicāra* or a malevolent rite to injure and repel enemies, is a primitive idea. It may be traced through the A.V. In the T.S. it is clearly laid down that the two types of Agniciti, i.e. Praugaciti and Rathacakraciti are meant for the purposes of *abhicāra*. This shows that the idea must have been a marked one in the earlier texture of the rite, when it had existed in an undifferentiated form. This idea naturally, therefore, occurs off-and-on in the procedure of the Śyenaciti also which, on the whole, was not at all an *abhicāra* rite. The preparation of the nine-cornered Ukhā, the leading of the ass before the horse while bringing the clay, the use of *Tilvaka* wood for the Samidhā, some ideas connected with the placing of the *Aṣāḍhā* brick, all these were meant for the purpose of *abhicāra*. It is also significant that these ideas occur only in the texts of the Kṛṣṇa Yajurveda which shows that this original idea was more faithfully preserved in this school. This tendency of *abhicāra* was responsible for the emergence of another malevolent rite, in course of time, known as the Śyenayāga, which was an Ekāha and the procedure of which was totally different from that of the Śyenaciti of the Agnicayana. The name *Śyena* appears here also but it is the *ābhicārika Śyena*, apparently derived from the religous vocabulary of the A.V.[2] It is not that *Śyena* which is represented with its flight to heaven in other texts[3] and also in connection with the Śyenaciti.

The other idea, associated with the formation of this rite, was that of appeasing the wrath of a dreadful deity by means of gifts. This is clearly seen in the Śatarudriya[4] in which 425 oblations are offered to the dreadful Rudra and his associates in order to appease his wrath so that he may not injure people with his bow and arrow. At the same time offerings were made to Mitra and Varuṇa to win their favour.

The complex nature of this sacrifice in the period of the Saṁhitās themselves and also in the obsolescence of some of its accessories; its wide acceptance and modifications in the different Saṁhitās and their later schools; the multiple origin showing commingling and reconciliation of diverse ideas and practices, benevolent and malevolent, in the Brāhmaṇas—all these point to its hoary antiquity antedating the redaction of the Saṁhitās into different schools.

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1. See below.
2. See below.
3. See below.
4. See below.

*The Tradition of the Agnicayana*

The evidence of Pāṇini leads one to conclude that the rite of the Agnicayana was in frequent practice in the 5th century B.C. Brick-names like *Aśvinī*[1] and *Vayasyā*[2] occur in the Aṣṭādhyāyī and a *sūtra*[3] suggests that some other bricks were also known to Pāṇini.

While giving the picture of the social, religious and political disintegration and chaos of the Kali Age, the Yugapurāṇa[4] section of the Gārgī Saṁhitā refers to the unrightful adoption of the practice of the performance of Agnikārya even by the Śūdras in that age. The text has been assigned to the first century B.C. by K.P. Jayaswal and this view has not been so far questioned. The Agnikārya which has been mentioned here as the representative element of Hinduism is evidently the same as Agnikarma[5] or the Agnicayana which symbolised the entire Vedic sacrificial ritual.

*The Puruṣamedha*

The Puruṣamedha figures in the ritual texts belonging to the R. V., Y.V. and A.V. It had thus a widespread recognition and acceptance. The statement of Keith,[6] that no trace of this rite is found in the Baud. Śr., is due to an oversight, as clear reference to Puruṣamedha does occur in this text. This rite is a variety of Soma sacrifice and is so-called because it involves the slaughter of men as sacrificial victims. It is a five-day sacrifice and the fundamental basis of its procedure is the same as that of the Aśvamedha. It should be performed by a Kṣatriya or a Brāhmaṇa. The object of its performance is to excell all others and to assert independent political supremacy.

Śāṅkhāyana and Vaitāna give details of the preliminary rites which include the purchase of the human victim — a Brāhmaṇa or a Kṣatriya for a thousand cows and a hundred horses. There are 11 *Yūpas* according to the texts

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1. Aṣṭādhyāyī IV. 4. 126.
2. Ibid IV. 4.127.
3. Ibid IV. 4.125
4. अग्निकार्ये च जप्ये च अग्निके च दृढव्रताः।
   शूद्राः कलियुगस्यान्ते भविष्यन्ति न संशयः॥ J.B.O.R.S., 1928, p. 403.
5. See below.
6. Keith, H.O.S., vol. 18, p. cxxxviii.

belonging to the Yajurveda and 25 according to Śāṅkhāyana who belongs to the R.V.

The first important rite in the text belonging to the Yajurveda is the sacrifice of 11 victims sacred to Agni and Soma. According to Śāṅkhāyana, the number should be 25. The most important rite known as the Atirātra is performed on the third day. On this day, 184 victims, according to the texts of the Śukla Yajurveda, are tied to the eleven posts. In the T.B. of the Kṛṣṇa Yajurveda, however, the number is 179. A Brāhamaṇa priest praises the men bound to the stakes by means of the Puruṣa-Nārāyaṇa litany. Then fire is carried round some of the victims including the Brāhmaṇas and others tied to the *Agniṣṭha Yūpa*. The *paryagnikṛt* victims are taken to the northern direction and are released. The remaining eleven or, according to some texts, twenty-two victims round whom the fire is not carried and who are thus non-*paryāgnikṛt*, are not taken to the northern direction; they are slaughtered. The term "Saṁsthāpayati" used in this context clearly indicates sacrificial slaughter.

The last round of the sacrifice, according to the texts belonging to the Yajurveda, consists of the immolation of eleven barren cows sacred to Mitra-Varuṇa, Viśve-devas and Bṛhaspati.

Śāṅkhāyana and Vaitāna lay down additional and vivid details regarding this sacrifice. According to the former, a man, a *gomṛga* and a hornless he-goat are sacrificed for Prajāpati. Then twenty-five victims are brought to each of the twenty-five sacrificial posts and sacrificed for the seasonal deities. Afterwards, the *Āprī* verses, '*Agnirmṛtyu* etc.', are recited on the well-adorned human victim. The Udgātṛ sings *sāman* addressed to Yama and the Hotṛ recites the Puruṣa-Nārāyaṇa litany. The victim is sacrificed and the healing ceremony is performed for the sacrificer. The first consort of the sacrificer lies down near the slaughtered victim. Both of them are covered with an upper garment. Some other rites are also performed in this connection. Lastly, there is a sacrifice of ten victims fettered to a forked stake and of another twelve for the season.

According to Vaitāna also, the human victim is taken to the slaughtering place in the shed of Śāmitra with great ceremony and is made to lie down. When he is slaughtered, the Puruṣa-Nārāyaṇa litany is recited and the healing ceremony is performed.

The *dakṣiṇā* of this sacrifice comprises the land, property and the subjects

excluding those of the Brāhmaṇas. A special course of life has been prescribed for one who has performed this sacrifice.

The united testimony of all the schools of R.V., Y.V. and A.V. shows that the Puruṣamedha was a real rite and it involved the actual slaughter of human victims. They were slaughtered in the Agni-Somīya ceremony. Then on the *Atirātra* day 11 or 22 human victims who were non-*Paryagnikṛt* were slaughtered. Śāṇkhāyana and Vaitāna further throw a flood of light on the procedure of slaughtering the human victims.

*The Evolution of the Puruṣamedha*

The rite in the beginning appears to have been comparatively simple. In the V.S. there is simply the enumeration of 184 human victims of different kinds appropriate for particular gods and goddesses. The Taittirīya Brāhmaṇa reproduces a similar list of 179 victims and deities. In the V.S. the verb is missing but in the T.B. we find the verb *Ālabhate* in many places which according to all commentators indicates slaughter. In the light of the T.B. the list given in the V.S. also implies sacrificial slaughter.

The main point to be considered in this connection is that in these two texts there is the enumeration of only those victims which in later texts are declared as the victims of the *Atirātra*, the central and the main rite of the Puruṣamedha. This leads to the conclusion that in the initial stages this sacrifice comprised only the rite of the sacrifice of 184 or 179 victims. Its various other accessories like the immolation of 11 or 25 victims, sacred to Agni and Soma, in the beginning and the sacrifice of 11 barren cows at the end which appear in the Ś.B. and the Sūtras of the Śukla and Kṛṣṇa Yajurveda, must have developed at a later stage when the sacrifice was tending to become more and more complex and elaborate.

Besides this, the tendency of growing complexity in the matter of sacrifice of human victims of the *Atirātra* is also found. In the V.S. and in the T.B. there is no indication of the partial release and partial sacrifice of human victims. The weight of evidence tends to suggest that all the victims were slaughtered. But, later on, there developed the tendency of the partial release and partial slaughter of human victims. The Ś.B. and the Śrauta Sūtras of the Yajurveda reveal that the Brāhmaṇas and other victims round whom the fire was carried were released and those for whom this particular ceremony was not performed were slaughtered.

The upshot of the whole discussion is that in the beginning the rite was comparatively simple and without any provision of the release of victims, but as time went on it tended to grow more and more complex and elaborate in ritual details and also in the provision for release of some victims. The practice of the release of Brāhmaṇas and others shows the operation of liberal tendencies and the influence of caste as already noticed in connection with the Agnicayana.

*Schoolwise Differences*

In the texts belonging to the Śukla and Kṛṣṇa Yajurveda, we find more or less the same procedure in respect of this rite. The main difference lies between the texts of these two schools on the one hand and the Śrauta Sūtras of the R.V. and A.V.—Śāṅkhāyana and Vaitāna—on the other. According to the former texts, the central ceremony involves the sacrifice of a number of human victims, whereas in the latter the main rite relates to the sacrificial slaughter of only one with an elaborate ceremony.

There are other minor variations also. For instance, the *Yūpas* should be 11 according to the texts belonging to the Yajurveda and 25 according to Śāṅkhāyana. The Vaitāna Śr., however, makes the specific mention of only one *Yūpa*.

*Antiquity and Origin of the Puruṣamedha*

The antiquity of the Puruṣamedha or the ritual form of human sacrifice, as found in the ritual texts, may safely be traced back to the period of the V.S. where the enumeration of 184 sacrificial human victims is found. Hillebrandt[1] goes to the extent of seeing even in the R.V. (X.18.7) the indication of this rite as preserved in the Sāṅk. Śr. where the chief queen lies with the dead body of the human victim. Though this view has not met with general approval, the wide acceptance of this rite by the texts of various schools strengthens the case of its antiquity. The view of Keith[2] that it was a much later 'priestly invention to fill up the gap in the sacrificial system which provided no place for man' is obviously incorrect in the light of the foregoing discussion.

The root-idea of the Puruṣamedha or the ritual form of human sacrifice

1. Hillebrandt, Ritual-litteratur, p. 153.
2. Keith, H.O.S., vol. 18, p. cxxxviii.

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obviously lies in the general practice of human sacrifice going back to the Indo-Europeans[1], which we shall consider at a later stage. From very early times there has been existing a belief in the great potency and efficacy of human sacrifice. The same idea is expressed in the Puruṣasūkta of the R.V. where the sacrifice by gods of the Primeval Puruṣa led to the creation of the universe. The idea expressed in the Puruṣasūkta has close connection with the ritual of the Puruṣamedha. It is the hymns of this Sūkta that are recited at the time of sacrificing the human victim in this rite.

Keith[2] has tried to connect this rite with the idea of healing the bodily infirmity of the sacrificer. On this view the basic idea behind the Puruṣamedha may be connected with the primitive idea of medicine man and healing. The healing ceremony appears only in the Śāṅkhāyana and Vaitāna Sūtras, which appears to have been performed not for the removal of the bodily ills of the sacrificer, but with a view to absolve him of the apparent moral sin incurred as a result of human slaughter. Therefore, the idea of healing as the original idea behind this rite does not appear to be correct. And also it cannot explain the whole of this rite. The fundamental idea[3] underlying this practice appears to have been the notion that man, the highest attainable being, could be the most appropriate gift to gods and at the same time a substitute for the sacrificer himself. This idea was at the root of the belief in the efficacy and potency of human sacrifice.

*Continuity of the Puruṣamedha Tradition in later Times*

The tradition of the rite continued even after the Vedic and the Sūtra periods. In the Jain and Buddhist literature we come across picturesque details of the performance of this rite along with the exaggerated depiction of its horrors. In his commentary on the Suttanipāta, Buddhaghoṣa gives clear and concise details of the rite in a way which shows that even upto his time it may have been a living tradition. In the Cho Dinh inscriptions of Champa (c. 400 A.D.), belonging to almost the same period, there is the reference to a Puruṣamedha performed by Mahārāja Bhadravarman or one of his descendants. This again shows that, upto the 4th-5th century A.D., the Puruṣamedha was a living tradition in a country whose culture was rooted in Indian culture. This epigraphic evidence, therefore, renders

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1. Infra, p. 116.
2. Keith, H.O.S., vol. 18, p. cxxxviii, also Eggeling, S.B.E., vol. XLIV, pt. V, p. xlv.
3. Cf. Eggeling, S B. E., vol. XLIV, pt. V., p. xviii.

untenable the suggestion of Weber[1] that due to the emergence of the custom that the priest should eat a portion of the offered victim, the human sacrifices involving the eating of human flesh tended to become impracticable in very early times.

In the non-ritual Hindu literature, i.e. the Mahābhārata, Vāyu Purāṇa, Bhāgvata Purāṇa and Kathāsaritsāgara, there are references to the Puruṣa-medha but in the majority of cases they are only faint echoes.

*Human Sacrifice (General)*

Floating ideas about human sacrifice throwing light on the antiquity of this practice are found in the R.V. and A.B. Among the evidences of human sacrifice found in the R.V., one of the most important is in the Puruṣasūkta[2] where it is stated that the gods sacrificed Puruṣa Prajāpati who, in this way, furnished the materials for the creation of the universe. Another passage[3] suggests the deliberate decision of Yama to sacrifice himself for the sake of mankind. Further, in the first book of this text, we find seven hymns supposed to have been recited by Śunaḥśepa when he was bound to a stake, obviously intended for a sacrifice[4] The Aitareya Brāhmaṇa[5] of the R. V. records details of the story in which the hymns of the R. V. have been connected with human sacrifice. The story relates how one Hariścandra, who had made a vow to immolate his first-born to Varuṇa, evaded his promise, how then Rohita, his son, purchased Sunaḥśepa from Ajīgarta and had him tied to a stake for sacrifice in redemption of his father's vow to Varuṇa and how the victim was finally released. Scholar's[6] like Rosen and Wilson are of the opinion that the hymn of the R.V., in which we find the mention of Śunaḥśepa, cannot be associated with human sacrifice. It is true that the details of a sacrifice are not given in the hymns but it is not reasonable to expect such details in them.

Some[7] also think that the reference here is to a symbolic offering, but the

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1. I. S. B. E., vol. XLIV, pt. V, p. xli, fn. 1.
2. R.V. X. 90.
3. R. V. X. 13. 4.
4. R. V. I. 24 ff.
5. A. B., vol. 2, chap. xxxiii.
6. J A.S.B, 1876, p. 90.
7. Ibid, pp. 91, 94.

legend clearly shows that, at the time of the Aitareya Brāhmaṇa, human sacrifice was fairly known and it may have been tolerated and practised. This view is further confirmed by another legend[1] which appears in that text. It states that in the beginning the gods took human beings as sacrificial victims. From this M.Müller[2] rightly concludes that human sacrifice may have played a definite role in the old days with the Hindus. Weber[3] also agrees on this point.

*Human sacrifice in the Vedic Ritual*

It has already been shown that human slaughter was an essential ingredient of the Agnicayana and of the the Puruṣamedha sacrifice. The texts refer to a sacrifice known as Sarvamedha which also involved human sacrifice. The Rājasūya[4] and the Aśvamedha[5], too, required the immolation of a man. Weber's[6] view that human victims were slaughtered in the Mahāvrata is fully supported by the Śāṅk. Śr.[7] which refers to the procurement of a Śūdra, an Ārya, a woman and a man, an eunuch and a bald headed person in connection with this sacrifice. Thus, it is clear that human sacrifice formed an integral part of a number of Vedic rites.

*Evidence and Role of Human Sacrifice in the Religion of other Indo-Aryan Peoples*

As a matter of fact there are few ancient religions which can show a history completely free from the ritual practice of human sacrifice.[8] It must have played a prominent role in the religion of the Aryan people.[9] There is evidence of its existence among the northern peoples until late in the Christian Era.[10] The Greek myths contain references to it[11] and in Rome also men were sacrificed in ancient times.[12] An ancient mythological idea that the

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1. Weber, Z D.M.G., 1864, p. 262.
2. M. Müller, History of Ancient Sanskrit Literature, pp. 419-20.
3. Weber, op. cit.
4. Z. D. M. G., 1864, pp. 267–68.
5. Ś. B. XIII. 3.6.5.
6. Weber, op. cit.
7. Śāṅk. Śr. XVII. 6. 1.
8. E. R. E., vol. VI, p. 840.
9. O. Schrader, Prehistoric Antiquities of the Aryan Peoples, tr. F. B. Jevons, p. 422.
10. Ibid, loc. cit.
11. Ibid, loc. cit.
12. Ibid, loc. cit.

world and mankind originated from the sacrifice of a primeval being was possibly prevalent in a considerably wide area extending from Germany to the region of the Indo-Iranians.[1] This very idea is reflected in the Puruṣasūkta of the R.V. also. It shows the great belief in the efficacy and potency of human sacrifice in early times. Further, in the cult of Othin which was prevalent until late in the Christian Era among certain sections of the Aryan people, there is positive proof of human sacrifice, a graphic account of which has been given by Thietmar : "There is a general gathering at this place[2] every nine years in the month of January, after the season at which we celebrate Epiphany. Here they sacrifice to their gods ninety-nine men and the same number of horses together with dogs and cocks which they offer in place of hawks." In the light of this well-documented list of a number of victims intended for slaughter, the large number of victims in the Puruṣamedha is also natural. The association of hawk with human sacrifice in the Baltic regions is not without significance in connection with the Śyenaciti.

It is fairly reasonable to believe that human sacrifice which was practised among their European kinsmen was prevalent among the Aryans of India also. According to Schrader, offerings were made to heaven in the Indo-European period to purchase its favour, appease its wrath, enquire its will, or by way of returning thanks and human sacrifice must have played a prominent role in them.

*The Tendency of Substitution*

In other countries of the world, where human sacrifice was in vogue, there developed in course of time the tendencies of substitution as a result of the growing humanitarian ideas. The substitutes[3] in some cases may have been animals, in others, effigies and dolls.

In the Vedic ritual of India also a more or less parallel development is traceable. But this tendency of substitution operates only in the sphere of the Agnicayana and there too in limited *Śākhās*. The Śukla Yajurveda School was largely affected by this tendency where clay or gold models were conceived as substitutes for the actual human head as well as for those of the remaining four victims. The Taittirīya School was less affected by this tendency; for, it only

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1. Keith, H. O. S., vol. 32, p. 619.
2. The place refers to Leire, Chadwick, The Cult of Othin p. 24.
3. E.R.E. vol. VI, pp. 845 ff.

recognised the head of a man, killed in battle or by an arrow-shot or by thunderbolt, as the substitute for the head of a man actually sacrificed for the purpose. It has already been indicated that the texts themselves provide evidence of the existence of forces and tendencies which were responsible for this development in the Vedic religion, i. e. the reformist tendency and the influence of the caste system. The former found its full expression in Jainism and Buddhism which in turn further influenced the Vedic ritual.

*Views of Scholars on Human Sacrifice in the Vedic Ritual examined*

The foregoing discussion amply reveals the prevalence of human sacrifice in the Vedic period in a general as well as in a special form, the latter being expressed in the Vedic ritual. It has generaly been accepted that there is the most unmistakable trace of human sacrifice[1] in the Agnicayana. So far as the Puruṣamedha or the ritual form of human sacrifice is concerned, it is quite clear that in the Vait. Śr. and Śāṅk. Śr. it involved actual human slaughter.[2] But as regards its presence in connection with this rite in the texts of the two major schools of the Yajurveda, there are conflicting views. Some scholars[3] think that the entire rite was symbolic. Others[4] consider it to involve to some extent real human sacrifice. R. L. Mitra[5] holds that the Taittirīyas did not look upon the rite as symbolic, whereas according to the Ś.B. of the Śukla Yajurveda School, all the human victims were let off. The correct position, as the discussion in the next section will reveal, is that in both the major schools some human victims were let off after *paryagnikaraṇa* and the remaining were actually slaughtered. The position of Kātyāyana in respect of the release and slaughter of victims is not very clear. It is just possible that he may have neen influenced by those tendencies which culminated into the doctrine of Ahiṁsā and had their effect on the rite of Agnicayana too.

Hillebrandt,[6] while accepting the view, hesitates to accept the sacrifice of such a large number as a believable reality. The number, however, is not

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1. Eggeling, S. B. E., vol. XLIV, pt. V, p. xxxvii; Keith, H. O. S., vol. 18, p. cxxxix.
2. See below; e. g. Keith, H. O. S., vol. 32, p. 347.
3. Eggeling, S. B. E., vol. XLIV, pt. V, pp. xxxiv, xli; Oldenberg, Religion desa Veda, 2nd ed., pp. 362 f., quoted in A History of Indian Literature, vol. I by Winternitz, p. 175 fn; Keith, loc. cit.
4. Weber, Z.D.M.G, 1864, pp. 262 ff.; Hillebrandt, Rituallitteratur, Grundriss III, 2, p. 153
5. J. A. S. B., 1876, p. 103.
6. Hillebrandt, loc. cit., p. 153.

of such a great consequence as to serve as a deterrent to the view of actual sacrifice of human victims. As already noticed,[1] the sacrifice associated with the cult of Othin involved the actual slaughter of as many as ninety-nine men besides an equal number of horses together with other animals. It is, however, important to note that all the human victims, mentioned in connection with the Puruṣamedha, were not slaughtered; some were released after the fire was carried around them.

## III. CORRELOATION OF THE ARCHAEOLOGICAL AND LITERARY EVIDENCE

The archaeological data, noticed above, clearly reveal a ritual altar of the shape of a flying bird, which was the result of one building activity reflecting the observance of rigid ritual formulas in the arrangement of the special objects placed in it. The stratigraphical evidence leads one to the conclusion that the initial stages of digging the pit, levelling of the ground and finally the construction of Vedikā no. 4, the piling of the bird-shaped altar in five layers and the preparation of smaller platforms at different levels, all formed part of one continuous effort. The shape of the altar simulating a flying bird, and also the key position occupied by the centre of the circular pit of Vedikā no. 4, full of ash and charcoal, in determining the position of the various parts and the objects of the altar, reveal a deliberate planning. The presence of a large humber of human skulls and bones of animals of different species, meticulously arranged, the bricks of special shape, size and line-marks including the special brick with the portrayal of human sacrifice, all piled up in a special way, the placing of the kankar nodule encircled by bricks just at the centre of the first layer of the body, the special position of the fire-pan full of sand resting on a bed of sand spread on a small brick-platform in close proximity with a female terracotta figurine and the tortoise-shell, all these reflect deliberate setting according to definite ritual rules.

### *The Initial Stages of Construction*

The initial stages of construction, as the archaeological evidence reveals, comprised the digging of a pit unequal in depth in different areas, the performance of a rite the traces of which have been discovered at the

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1. Supra, p. 116.

bottom of the pit in the form of a bone placed on potsherds, the piling of the sacrificial Vedikā no. 4 near the junction of the body and tail towards the right, the preparation of the ground, the erection of a mound, 8 ft. high, containing sand, gravel, clod-bricks etc. within the area of the body of the altar and then the levelling of the ground by spreading soft and well-weeded clay. The ritual texts also prescribe the same process including the preparation of the sacrificial ground by ploughing, watering and sowing it. The bone placed on potsherds at the bottom of the pit represents the initial offering of *Paśu-puroḍāśa* to Vaiśvānara in connection with *dīkṣā*, which, as the stratigraphical evidence clearly shows, was the preliminary rite.

The Vedikā no. 4, measuring 5 ft. 3.5 ins. east-west and north-south, represents the Vedikā of the original Gārhapatya hearth which in its rectangular shape and size accords with the rulès laid down by Āpastamba, prescribing a *caturasra* Gārhapatya hearth measuring one *vyāyāma* (fathom or 6 ft.). The bricks of this Vedikā are of various shapes and sizes, some being very large and others, only clod-bricks; the absence of any special colour or line-marks indicates that they are not special bricks. The ritual texts also lay down that only *Lokampṛṇās*, and not special bricks, should be placed on this Vedikā.

There is also the provision for a circular Gārhapatya hearth in the Āp. Śr. and in some other texts. Corresponding to this, there has been found a circular pit, lined with bricks just close to the Vedikā mentioned above, with a radius of 4 ft. 5 ins. The entire area was filled with ash, charcoal and charred grains which furnishes evidence of a sacrificial hearth. The entire Gārhapatya Vedikā was covered with fine sand, 3 ins. in thickness, which, again, is in conformity with the ritual rules prescribing that it should be covered with sand afterwards. In the matter of the chronological sequence of building the Gārhapatya hearth after the offering of the *Paśu-puroḍāśa* to Vaiśvānara, there is complete agreement between the injunctions laid down in the texts and the stratigraphical evidence discovered at the site.

The situation of this Vedikā near the junction of the body and the tail and behind the terminal point of the right wing, at a lower level, is the same as prescribed in the texts.

The discovery of an unlined pit, below the right shoulder of the bird, full of ash and charcoal, in the same line as the centre of the Gārhapatya

and the inner joint-point of the right wing and the body, accords with the position of the Āhavanīya according to the ritual texts.[1]

The next important stage in the process of construction, as the stratigraphical evidence reveals, was the building of a mound within the area of the body. This may be identified with the Uttaravedi which, according to the ritual rules, is built at this stage and in the same manner in the form of a mound of earth. Sand, gravel and clod-bricks which are required to be placed in the Uttaravedi, have been found in this mound. Afterwards, the whole ground was made level with the Uttaravedi which is in accordance with the procedure laid down in the texts.

*The Altar is a Śyenaciti*

The excavations have brought to light an altar in the form of a flying bird with wings not fully spread, the shoulders raised and the head and the beak slightly tapering. This is precisely the way in which the Śyenaciti, the principal type of the Agniciti, consisting of a head, a body (middle part), two wings and a tail, is piled up. The bird represented here is the *Śyena* or hawk.

The total length of the available altar from beak to tail is approximately 49 ft. 8 ins. and the width is approximately 33 ft. 6 ins. However, it is significant to notice here that the same width of the altar, i.e. 33 ft. 6 ins. across the body and the two wings, has been prescribed in the T.S.B. The length and width of the body of the available altar are 19 ft. 6 ins. and 13 ft. respectively. The Śulba Sūtra of Āpastamba also gives similar dimensions, i.e. 2.5 *puruṣas* (16 ft. 10.5 ins.) and 2 *puruṣas* (13 ft. 6 ins.) respectively.

The archaeological evidence reveals that the bricks were specially piled up on the altar according to certain rules; they were not laid one upon another in a regular order which is the principle followed in the building of an ordinary brick-structure. In the ritual texts there are elaborate rules for piling the bricks and it is specifically laid down that they should be piled and not laid down upon one another in a regular order. The terms used in this connection are *cīyate* and *cetavyam*.

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1. Ś. B. X. 2. 3. 1. ff.

The right wing of the available altar shows three clear divisions in conformity with those--*Pakṣa*, *Pakṣamadhya* and *Pakṣāgra*--prescribed by Āpastamba.

The piling of the altar in five successive layers of bones and bricks with the intervening layers of sand and mud mortar is in accordance with the ritual procedure. The two layers from the top have been largely washed out but their unmistakable traces are still left. There was a layer of sand between the first and the second layer and ritual texts also lay down the same. There was a layer of loose earth in between every two of the remaining layers. These are evidently the *purīṣa* layers, the spreading of which has been prescribed in this very manner.

*Layer I*

Layer I of the body was piled up after making the area level with the central mound or the Uttaravedi as laid down in the ritual rules. The special objects found in this layer are identified as below:—

*The Kankar Nodule (Svayamātṛṇā)*

The kankar nodule with small cavities on its surface, surrounded by a set of bricks, forming a circle found at the centre of the body in the first layer, is evidently the *Svayamātṛṇā* described as *Śarkarā* or *Kṣudrapāṣāṇa* in the ritual texts and required to be placed at the centre of the body in this layer. Thus, the distinctive features of the kankar nodule and its central position within the ring of bricks in the first layer easily lead to its identification with the *Svayamātṛṇā*.

*The Fire-Pan (Ukhā)*

From its distinctive characteristics and its particular position in this layer the fire-pan or the offering-stand may be identified with the Ukhā of the ritual texts according to which it should consist of three parts so as to look like three pots placed upon one another. A chord or *raśanā* is marked round the neck at the junction of the first and second parts, which has been described as *galagatā rekhā* by Sāyaṇa. The fire-pan has also been called *dvistanā* as the dish and the base thereof simulate two breasts. Some texts prescribe that it should be round and a *prādeśa* or a span (about 9 ins.) wide at the top.

The prominent features of the available offering-stand are also its three parts, a short stem, a broad base, dish at the top with a width of 9 ins. and a marked carination, at the junction of the dish and the stand, made prominent by a chord. Thus, the three parts of the offering-stand, the round dish at the top with a width of 9 ins., the chord round the neck and its general resemblance with two breasts, all these are in accordance with the ritual rules.

The texts lay down that the Ukhā should be placed in the first layer, to the north of the *Svayamātṛṇā*, at a distance of one cubit on the pounded clay and then removed from it and placed slightly further onwards on a bed of sand. The available offering-stand was in like manner placed on sand over a brick-platform at a distance of 2 ft. 11 ins. to the north of the central kankar nodule. Further, according to the texts, the Ukhā is filled with ghee, curd, honey and sand. The dish of the available Ukhā shows traces of some sacrificial material sticking to its bottom. It was also covered with sand.

It is significant to note that the Ukhā, with its archetype in the chalcolithic dish-on-stand, is entirely unknown to the ceramic tradition of the Gangetic Valley in the third-first century B. C. It was surviving at that time only in the ritual tradition and throws valuable light on the cultural synthesis achieved in the period of the Brāhmaṇas and the Śrauta Sūtras.

*The Terracotta Female Figurine*

The terracotta female figurine may be identified with the goddess Sinīvālī mentioned in the texts. The distinctive features of the available figurine – the gracefulness, the complex and elaborate arrangement of the hair into braids and the decoration of the headgear with a triple pearl string, are just those mentioned in connection with the goddess Sinīvālī addressed in the ritual texts as a beautiful maiden, *sukapardā* (with fair braids) and *sukurīrā* (with fair head-dress). She is invoked to initiate the preparation of the Ukhā. In this altar also this figurine was placed in close association with it.

*The Iron Model of a Snake*

The texts of the Kṛṣṇa Yajurveda School prescribe that the head of a snake should be placed in the first layer. Here also the iron model of a snake has been discovered in this layer.

*The Bones*

The ritual texts prescribe the placing of the heads of five victims – a man, a horse, a bull, a ram and a he-goat in this layer. There is a provision for the placing of the human head in the northern direction after removing it from its original position.

The available archaeological evidence reveals the presence of the bones of these animals in the first layer of the body. Here also the human skull is placed in the northern direction on the tail. Bones of elephant, goat, cattle and some other animals (not yet identified) have been found in this layer. Reference to the bone of elephant occurs in a Buddhist text. A clear mention of domestic and wild animals in connection with this layer is found in the T. S. B. Besides skull, other skeletal material has also been used in this layer in association with the bricks. In the texts we find the repeated identification of bricks with bones. There is the reference to *asthīṣṭakā* and a clear provision for the restoration of the trunks of animals, evidently deposited earlier, by placing the heads in the first layer. All these clearly indicate that the texts envisage the placing of other skeletal material including parts of body, besides, the skulls of man and four other animals in this layer.

*The Tortoise*

The shell of a tortoise has been found to the east of the Ukhā. The texts lay down that a live tortoise should be placed to the east of the Ukhā so that the altar may not be turned into a Smaśānaciti. The presence of the tortoise-shell thus conclusively proves that it is a fire altar (Śyenaciti) and not otherwise.

*The Bricks*

The most significant brick, placed at a distance of 1 ft. 9 ins. from the central kankar nodule towards the front, may be identified with the *Aṣāḍhā* on the basis of its shape, size, line-marks, colour, texture and placing. The trapezoid shape, the three line-marks—curved lines, straight lines, dots etc.—the deep red colour indicating that materials like iron-dust were mixed with the clay of which it was prepared and its placing towards the front at a short distance – all these are in accordance with the rules laid down in the texts in respect of this brick. Besides, it is described as *devalakṣma* (bearing the

characteristic marks of the sacrifice) which is borne out in this case by the portrayal of the scene of human sacrifice on it. This evidence leads to the conclusion that the sacrifice (Puruṣamedha) was performed on this altar after its completion.

The bricks[1] on the body, which have been tentatively identified on the basis of their line-marks (three on each), their especially red colour and placing are – *Dviyajus* (1), *Retaḥsik* (2), *Viśvajyotis* (1), *Ṛtavyas* (2), *Asāḍhā* (1), *Prāṇabhṛts* (40) – a set of ten forming a circle round the centre and a row of ten on each of the three diagonals, those on the fourth diagonal being washed out, *Apāsyās* (10) – a set of five along with the frontal fringe and another along the right fringe. There are other bricks also which may be identified as *Lokampṛṇās*.

Finally, the body was sealed by a layer of sand about 3 ins. thick, of which there were no traces on the head, wings and the tail. This is in conformity with the evidence of the texts which prescribe that the sand should be deposited only on the body and not on other parts of the hawk-shaped altar.

*Layer II*

According to the texts, there should be no brick at the centre of the second layer. Here also the evidence shows the same. The ritual rules provide for laying down 20 bricks round the centre so as to form a square. Here, too, 20 bricks have been arranged round the centre. They comprise *Apāsyās*, *Āśvinis*, *Vaiśvadevis* and *Prāṇabhṛts*. The other special bricks on the body may be tentatively identified as five *Chandasyās* along the right fringe of the body, four along the frontal fringe and three along the left fringe. There are a number of other bricks also which may be identified with *Lokampṛṇās*. The bricks of this layer are triangular, rectangular, oblong, square etc. and have got a number of line-marks which is in conformity with the procedure laid down in the texts.

The bones recovered from this layer are all animal bones. In the texts also some bricks have been identified with various animals like he-goat, ram, bull, lion, steer, calf etc. At the centre of the layer the jaw-bone of a

1. The detailed identification of the bricks of all the layers on the basis of the Śulba Sūtras shall be discussed in a subsequent note.

buffalo has been recovered. It is interesting to note that in the Ś.B. the fire altar has been identified with a mighty buffalo.[1]

## *Layer III*

### *The Bricks*

An especially red brick with a hole has been found at the centre of this layer which may be identified with the *Svayamātṛṇā* or the self-perforated brick. According to the texts, this brick should be laid down at the centre of the first, third and fifth layers. Other special bricks recovered from the area of the body are—1 *Viśvajyotis*, 7 *Prāṇabhṛts* on the frontal fringe, 2 *Vālakhilyās* close to the row of the *Prāṇabhṛts*, 3 *Chandasyās* along the left fringe and 12 along the right fringe. There are a number of *Lokampṛṇās* and clod-bricks (*Yajuṣmatis*) also. All the special bricks are marked with three lines.

### *Skeletal Material in Layer III*

This layer has yielded the largest number of bones with a preponderance of human bones. This is in agreement with the procedure in the ritual texts as this layer specially represents the restoration[2] of the various parts of the body of Prajāpati. Ten bricks are identified with his head and some others, have been equated with the upper and lower parts of his feet, neck, hip, thighs, knees, etc. This layer of the altar has also yielded three complete human skulls, ten skull pieces and other skeletal material.

## *Layers IV and V*

The available archaeological evidence clearly reveals traces of the fourth and fifth layers which have, however, been considerably destroyed by a subsequent pit. Thus, the altar was piled up in five layers in accordance with the ritual procedure.

## *The Sadas*

The long platform behind the tail may be identified with the *Sadas*

1. Ś. B. VII. 3. 1. 34; S.B.E., vol. XLI, pt. III, p. 351.
2. Ś.B. VIII. 3. 4. 11.

which was one of the constituents of the altar of the grand Vedic sacrifices.

*Association of this Altar with the Taittirīya School of the Kṛṣṇa Yajurveda*

There are a number of special features in the present fire altar which tend to suggest its association with the Taittirīya School. In the first place, the placing of the bones of domestic and wild animals along with the bricks reflects a ritual procedure marked by rigidity and conservatism, especially characteristic of this school. Secondly, the altar shows the use of a circular Ukhā, the building of a rectangular Gārhapatya Vedikā and the placing of the iron model of a snake in the first layer, which are features confined to the Taittirīya School alone.

*It was the Altar of the Puruṣamedha*

There is sufficient evidence to conclude that this fire altar was piled up for the performance of the Puruṣamedha. On the most prominent brick, *Aṣāḍhā*, appears the scene of a human sacrifice – a man tied to a *Yūpa* with a rope and some instrument falling down on his neck. This reminds us of the Aśvamedha type of coins[1] representing on the obverse a horse before the *Yūpa*. It is also quite obvious that the multiplicity of human skulls, jaws and other bones in the available altar can not be associated with any sacrifice other than the Puruṣamedha. The other sacrifices like the Agnicayana, Rājasūya and Aśvamedha require the immolation of only one human victim and it is only in the Puruṣamedha that the slaughter of a number of them has been prescribed.

1. e. g. coins of Samudragupta and Kumāragupta.

# PART TWO

CHAPTER NINE

# THE AGNICAYANA

*Introduction*

The basic conception of Yajña (sacrifice) has been traced back to the Indo-European period.[1] But the evidence is meagre. A comparative study of the Ṛgveda and the Avesta has, however, revealed clear traces of the prevalence of the cult of sacrifice. In the Vedic literature the ritual was elaborated by generations of priestly families. By the middle Vedic period, the sacrifice with all its cumbersome and minute details, acquires enormous significance in the Brāhmaṇas. The Śrauta Sūtras of Baudhāyana, Kātyāyana, Āpastamba etc. furnish elaborate accounts of several sacrifices. The Upaniṣads with their emphasis on the way of knowledge, and more especially Buddhism and Jainism, offered a serious opposition to the institution of Vedic sacrifice. But the literary, epigraphic, numismatic and archaeological evidence clearly reveals that, even in the succeeding centuries, the tradition of Vedic sacrifice did not languish but continued to have a marked place in the Brahmanical scheme of religious practices. Kings like Khāravela, Samudragupta and many others gloried in the performance of sacrifices like Rājasūya and Aśvamedha.

The sacrifice is essentially an act of homage to the deities which consists of a gift, an oblation (*havis*) thrown into the fire with a view to obtain benefits, prosperity etc. Keith[2] holds the view of sacrifice as a gift. Hubert and Mauss[3], on the other hand, view it as a consecration, a movement from the profane to the sacred. Macdonell[4], however, is right in stating that in their general character Vedic sacrifices are mostly supplicatory, never thank-offerings. In the Brāhmaṇas the distinction between the sacrifice and magical art has diminished to a consi-

1. Keith, H. O. S., vol. 32, pp. 625-26.
2. Keith, H. O. S., vol. 31, chap. 18.
3. Ibid.
4. E. R. E., vol. XII, p. 611.

derable extent. The essential constituents of Vedic sacrifice (Yāga) are *dravya* (material), *devatā* (deity) and *tyāga* (abandonment).

Vedic sacrifices are classified in many ways. Some favour their division into *nitya* (periodic) and *naimittika* (occasional or special). From another standpoint they are divided into Gṛhya (domestic) and Śrauta (public). The Śrauta sacrifices comprise the Haviryajñas and the Soma sacrifices (Somasaṁsthās). The former essentially differ from the latter in so far as they do not employ the *sāman* singers.[1] Some are inclined to think that the fundamental and typical Vedic sacrifices are those of the Soma.[2] The Agniṣṭoma, Mahāvrata, Vājapeya, Rājasūya, Aśvamedha, Puruṣamedha etc. are the various types of the Soma sacrifice. These sacrifices, involving a considerable amount of material, complex procedure, a large number of priests and huge gifts, could have been performed by kings and wealthy men only.

The Agnicayana or the piling of the fire altar is one of the *aṅgas*[3] of the Somayāga which is compulsory in the Mahāvrata and optional in other Soma sacrifices.[4] This rite extends over a period of one year.[5] The Ś. B. too is in favour of this period, though it also refers to another school, according to which, the performance of this rite should take two years.[6]

The performance of the Agnicayana starts on the full moon day of Uttarā Phālgunī.[7] This day, according to the Ś.B., is the very mouth of the year, and thus the rite starts with the beginning of the new year.[8] According to another view, however, it starts on the Amāvasyā.[9] The Āp. Śr. prescribes that the sacrificer, desirous of piling up the fire altar on the Amāvasyā, should perform

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1. Keith, H. O. S., vol. 32, p. 316.
2. Louis Renou, Vedic India, p. 104.
3. अग्निः सोमाङ्गं . . . । Kāt. Śr. XVI. 1; Cf. Kane, History of Dharmaśāstra, vol. II, pt. II, p. 1247.
4. इच्छतः समहाव्रते नियमः । Ibid, XVI. 2. Also Vait. Śr. V. 28. 2.
5. अग्निचयने सांवत्सरिके . . . । Mīmāmsākoṣa, vol. 1, p. 54.
6. तमेतं संवत्सरऽएव चिनुयात् । Ś. B. VI. 1. 3. 20; हैकऽआहुः . . . द्वयोरेव चिनुयाद्द्वयोरेवानुब्रूयादिति संवत्सरे त्वेव चिनुयात् etc. Ibid, VI. 1. 3. 20.
7. उत्तरस्यां फाल्गुन्यां पौर्णमासेनेष्ट्वा etc. Kāt. Śr. XVI. 5.
8. तद्वै फाल्गुन्यामेव । एषा ह संवत्सरस्य प्रथमा रात्रिर्यत्फाल्गुनी . . . या पूर्व्वा मुखतऽएव तत्संवत्सरमालभते । Ś. B. VI. 2. 2. 18.
9. अमावस्यायामालभेतेत्यु हैकऽआहुरसौ etc. Ibid, VI. 2. 2. 16; अमावस्यायामेके । Kāt. Śr. XVI. 7

the *Ukhāsambharaṇa* ceremony on the full moon day.[1] This appears to be an attempt at reconciling the two views.

### *Types of the Agniciti*

The ritual texts prescribe various types of the fire altar for different purposes and objects. The T. S. B. speaks of as many as ten types[2] of the Agniciti:—

(1) Chandaściti (prescribed for one desirous of cattle);

(2) Śyenaciti (prescribed for one desirous of heaven);

(3) Kaṅkaciti (prescribed for one desirous of a head in the yonder world);

(4) Alajaciti (prescribed for one desirous of support);

(5) Praugaciti and Ubhayataḥ-praugaciti (prescribed for one desirous of repelling foes);

(6) Rathacakraciti (prescribed for one desirous of repelling foes as if with a thunderbolt *Vajra*);

(7) Droṇaciti (prescribed for one desirous of food);

(8) Samūhyaciti (prescribed for one desirous of cattle);

(9) Paricāyyaciti (prescribed for one desirous of village) and

(10) Śmaśānaciti (prescribed for one desirous of the world of fathers).

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1. अग्निं चेष्यमाणोऽमावस्यायां पौर्णमास्यामेकाष्टकायां वोखांसम्भरति। ĀP. Śr. XVI. 1. 1.
2. छन्दश्चितं चिन्वीत पशुकामः . . . श्येनचितं चिन्वीत सुवर्गकामः श्येनो वै वयसां पतिष्ठः श्येन एव भूत्वा सुवर्गं लोकं पतति कङ्कचितं चिन्वीत यः कामयेत शीर्षण्वानमुष्मिँल्लोके अलजचितं चिन्वीत चतुःसीतं प्रतिष्ठाकामः . . . प्रउगचितं चिन्वीत भातृव्यवान् . . . उभयतःप्रउगं चिन्वीत यः कामयेत प्रजातान्भातृव्यान्नुदेय . . . रथचक्रचितं चिन्वीत भातृव्यवान्वज्रो वै रथो वज्रमेव भ्रातृव्येभ्यः प्रहरति . . . द्रोणचितं चिन्वीतान्नकामो . . . समूह्यं चिन्वीत पशुकामः . . . परिचाय्यं चिन्वीत ग्रामकामो . . . श्मशानचितं चिन्वीत यः कामयेत पितृलोकः। T. S. B. V. 4. 11.

In the M.S.[1] also we get similar details regarding the types of the Agniciti.

The Ś. B[2] mentions the Suparṇaciti and its derived forms as well, viz. Droṇaciti, Rathacakraciti, Kaṅkaciti, Praugaciti, Ubhayataḥ-prauga citi and Samuhyapurīṣa, but preference has definitely been given to the Suparṇaciti.

The Baud. Śr.[3] refers to all the *citis* of the T.S.B. except nos. 8 and 9. But it also mentions an additional *citi*, i.e. Kūrmaciti which is prescribed for one desirous of winning *Brahmaloka*.[4] In the Āp. Śulb.[5] the types of the Agniciti are the same as in the T.S.B. The Kūrmaciti of Baudhāyana does not figure in this text. But we find in it the mention of Upacāyyaciti, the object of which is the same as that of Paricāyyaciti, i.e. the possession of a village.[6] Both the terms possibly stand for one and the same type.

In the Kāt. Śr.[7] the details regarding the types of the fire altar are the same as in the Ś.B.

It is important to note that the Samūhyaciti, Upacāyyaciti and Paricāyyaciti are simply *Upadhānavidhi*[8] which means that they are distinguished from one another on the the basis of the *mantras* only

*The Suparṇaciti or the Śyenaciti – the most Important Type*

In the Ś.B.[9] the Suparṇaciti is given preference over other types. In the commentary on the Āp. Śulb., Kapardi[10] and Karavinda[11] cite from an ancient

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1. M. S. III. 4. 7.
2. एतया व्विकृत्याऽभिमंन्यान्यां चितिं चिन्वन्ति द्रोणचितं वा रथचक्रचितं वा कङ्कचितं वा प्रउगचितं वोभयतःप्रउगं वा समुह्यपुरीषं वा न तथा कुर्याद्यथा पक्षपुच्छवन्तं गर्भं परिवृश्चेत्तादृक्तत्तस्मादेनं सुपर्णचितमेव चिनुयात्। Ś.B. VI. 7. 2. 8.
3. Baud. Śr. XVII. 28-30; XXX. 8-20.
4. कूर्मचितं चिन्वीत यः कामयेत ब्रह्मलोकमभिजयेयमिति। Ibid, XXX. 20.
5. Āp. Śulb., pp. 202 ff.
6. परिचाय्यं चिन्वीत ग्रामकाम इति विज्ञायते। उपचाय्यं चिन्वीत ग्रामकाम इति विज्ञायते। Ibid, p. 225.
7. Kāt. Śr. XVI. 152, 154.
8. Āp. Śulb., p. 225 (Kapardi Bhāṣya).
9. Supra, fn. 2.
10. शुल्बान्तरे चोक्तं 'श्येनचिदग्नीनां प्रथमोऽग्निः' इति। Āp. Śulb., p. 129.
11. शुल्बान्तरे च श्येनचिदग्नीनां प्रथमोऽग्निरित्युक्तम्। Ibid, p. 131.

Śulba Sūtra to the effect that the Śyenaciti occupies the first place. In the commentary on the same text by Sundararāja, it is held that 'the Śyenaciti is eternal' and the *mantra* with which it is associated clearly shows that *Śyena* and *Suparṇa* in this context are the same.[1]

Now the question arises whether and how the Suparṇaciti and the Śyenaciti are the same.

The types of *citis*, which are said to have been derived from the Suparṇaciti in the Ś.B. and Kāt. Śr., are regarded as secondary forms of the Śyenaciti in the Āp. Śulba.[2] From this it is quite clear that the two are the same. The Bhaṭṭacandrikā (Saṅkarṣa) also leads to the conclusion that the Śyenaciti resembled the *Śyena* bird from the point of view of its concrete shape[3] and the same was deemed as possessing the shape of *Suparṇa*, as the *mantra* containing the word '*Suparṇa*'[4] was associated with it. Pt. Chinnaswami Śāstri[5] has expressed the traditional view, according to which, Suparṇaciti is only another name of the Śyenaciti which occupies the first place.

The Ś.B. and Kāt. Śr. of the Śukla Yajurveda School prefer the term Suparṇaciti for which the T.S.B. and the Sūtras of the Kṛṣṇa Yajurveda School adopt the name Śyenaciti.

It would be worthwhile to examine the connotations of the two terms *Suparṇa* and *Śyena*. In the R.V.[6] '*Suparṇa*', literally meaning 'well-winged', stands for the 'eagle' or 'vulture'. The term '*Śyena*' also most probably means 'eagle' in this text.[7] It has been mentioned as a swift and strong bird of prey.[8] The *Śyena* is said to be the father of *Suparṇa*[9] and thus both are conceived as related to each other. In the post-Ṛgvedic period, as the evidence of A. V. shows, the

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1. अनेन श्येनचितिर्नित्येति ज्ञायते। मंत्रवर्णाश्च भवन्ति, 'सुपर्णोऽसि गरुत्मान्' इत्यादीनि। Ibid, p. 134.
2. Āp. Śulb., pp. 292 ff.
3. अग्निचयने श्येनाकृतिः काम्यैव, Saṅkarṣa, Mīmāmsākoṣa, vol. I, p. 48.
4. अग्निचयने सुपर्णाकृतिबोधकमंत्रः अर्थवादः ibid, vol. I, p. 54.
5. श्येनचितिरेव सुपर्णाचित्यपरनामधेया प्राथम्यं प्राधान्यं च आवहति। Yajñya Tattvaprakāśa, p. 98.
6. द्वा सुपर्णा सयुजा सखाया, R. V. I. 164. 20.
7. Vedic Index., vol. II, p. 401.
8. Ibid.
9. यं सुपर्णः परावतः श्येनस्य पुत्र आभरत्। R. V. X. 144. 4.

*Śyena* appears to have connoted the 'falcon' or 'hawk'.[1] The same text shows that the two terms became interchangeable.[2] The swift-flying *Śyena* was supposed to bring the Soma from heaven[3] and the *Suparṇa*[4] was also associated with swift flight to heaven and with *amṛta*. Under these circumstances, both these terms could be easily identified.

In this connection it is significant to notice that the Ṣaḍ. B.[5] mentions the Śyena rite as a magical and malevolent practice which was performed with the object of injuring enemies. In his commentary Sāyaṇa[6] explains that the Śyenayāga is the *vikṛti*–modified or derived form–of the *Śyena*. Now if it was at all derived from the Śyenaciti why and how was the name *Śyena* given to it? It is well known that the bird *Śyena* is quick to overpower other birds and this rite was also intended to overpower and injure enemies. Moreover, having been prominently used in the magical setting of the A. V., the *Śyena* must have acquired a special magical significance. Under these circumstances, the name *Śyena* which was already associated with the *prakṛti* could have easily been extended to the *vikṛti* also.

### *Significance of the Agnicayana*

A great symbolic and mystic significance has been attached to the Agnicayana. Prajāpati, the creator of the universe, who has been dismembered, is constantly identified[7] with the fire altar, the piling of which represents the restoration of his body.

In the Ś.B. there are some significant myths regarding the dismemberment of the body of Prajāpati. According to one myth which may be traced back to the Puruṣasūkta of the R.V.,[8] the gods sacrificed the creator Puruṣa

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1. Vedic Index, vol. II, p. 401.
2. श्येनो नृचक्षा दिव्यः सुपर्णः सहस्रपाच्छतयोनिर्वयोधाः। A. V. VII. 41. 2.
3. Vedic Index, vol. II, p. 401.
4. Ibid, p. 455.
5. अथैष श्येनेनाभिचरन् यजेत। Ṣaḍ. B. III. 8, p. 24.
6. श्येनस्यविकृतिभूतश्येनाख्यो यागो निरूप्यते। Com. of Sāyaṇa on Ṣaḍ. B. IV. 2, p. 66.
7. प्रजापतिरेषोऽग्निः। Ś. B. VIII. 2. 1. 18; Ibid, VI. 12.13.
8. देवा यद्यज्ञं तन्वाना अवध्नन्पुरुषं पशुम्। R.V. X. 90.15. यज्ञेन यज्ञम् अयजन्त देवास्तानि धर्माणि प्रथमान्यासन्। Ibid, X. 90.16. यज्ञं यथोक्तयज्ञस्वरूपं प्रजापतिमयजन्त। Sāyaṇa on ibid.

Prajāpati[1] and the parts of his body were taken away by various gods,[2] which are restored by the rite of the fire altar. In another myth we find that Prajāpati was in the beginning partly mortal and partly immortal.[3] Being afraid of death, he transformed himself into clay and water. The gods searched out and found him in these two elements and then they made a brick out of them. The piled up fire altar symbolising Prajāpati contains both his mortal — the hair on the mouth, the skin, the flesh, the bone, the marrow — and the immortal—the mind, the voice, the vital air, the eye and the ear — parts. The five mortal parts are represented in the altar by the five layers of earth and the five immortal ones, by the five layers of bricks. Through this fire altar Prajāpati finally becomes immortal. According to a third myth,[4] however, Prajāpati, after creating the creatures, himself became disjointed and got immanent in time — year and season — space and matter and his restoration[5] is brought about by Agni through the process of the Agnicayana.

Thus the essence of piling the fire altar consists in the reconstruction and restoration of Prajāpati who, having been sacrificed as a Puruṣa, became the source of the creation of the universe in all its parts. As this sacrifice is conceived as a constant process, it is deemed essential that this disjointed god must be reconstructed and renewed in the form of the fire altar again and again. This rite has thus a cosmogonic significance.[6] The piling of the fire altar, representing the restoration of the dismembered Prajāpati, symbolises the cosmic unifying process comprehending the activities of the gods, and the sacrificer, by participating in this act, is considered as divinified.

The Sun, the god Agni, Prajāpati, the sacrificer and the fire altar are constantly conceived as identical. Various accessories of the rite are identified with metres and also the parts of the year which is the symbol of time. It is in the Ś.B. that the year is conceived as identical with Prajāpati and, thus, time is also brought into the complex web of this identification.

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1. यान्वै तान्सप्तपुरुषान्। (ते) एकं पुरुषमकुर्व्वन्त्स प्रजापतिरभवत्स प्रजाऽअसृजत स प्रजाः सृष्ट्वोर्ध्वऽउदक्रामत्सऽएतं लोकमगच्छद्यत्रैषऽएत्ततपति नो ह तर्ह्यन्यऽएतस्मादत्र यज्ञियऽआस तं देवा यज्ञेनैव यष्टुमध्रियन्त। Ś. B. X. 2. 2.1.
2. प्रजापतिं विस्रस्तं देवताऽआदाय व्युक्रामंदस्तस्येन्द्राग्नी च विश्वकर्मा च मध्यमादायोत्क्रम्यातिष्ठन्, Ś. B. VIII. 3.1.5.
3. Ś.B. X. 1.3.2-7; X. 1. 4. 1.
4. Ś B. VI. 1. 2.
5. तमग्निः समदधात्तस्मादेतं प्रजापतिं सन्तमग्निरित्याचक्षत। Ś.B. VI. 1. 2. 13.
6. Cf. Kane, History of Dharmaśāstra, Vol. II, pp. 1246—47.

In the bird-shaped altar there is the underlying idea of the bird flying to the sky with which the sacrificer, who is identified with Prajāpati, is to attain heaven. The chief benefit accruing from this rite is, thus, the attainment of the divine nature of immortality and heavenly abode like Prajāpati.

### *Importance of the Agnicayana*

The Ś.B. speaks volumes of the importance of the Agniciti. The fire altar symbolises[1] all the important sacrifices. The animal victim is compared to the Agnyādheya, the oblations of which are represented by the collection of material for the fire-pan. The initiation ceremony, in connection with this rite, is equated with the Agnihotra. The driving about and the taking down of the ashes of the fire-pan, constitute the Darśapūrṇamāsa. The building of Gārhapatya hearth is the Cāturmāsya. The sowing of seeds on the prepared site of the fire altar is compared to *Iṣṭis*. What takes place after the all-herb sowing and prior to the piling of the layers is taken to symbolize the Paśubandha. The first layer is the Soma Sacrifice, the second Rājasūya, the third Vājapeya, the fourth Aśvamedha and the fifth Agnisava. The *sāman* sung on the altar is the Mahāvrata and the rite performed after the shower of wealth, is equated with the Gṛhamedha.[2]

### *Object of the Śyenaciti*

It has already been noticed that the Śyenaciti is the principal *citi*.[3] It is conceived as the *prakṛti* or model of all other *citis*. The objects of the piling of various *citis* have already been noticed. The primary object of the Śyenaciti is the attainment of heaven. In some of the Saṁhitās also we find that the bird is invoked to fly to heaven;[4] this symbolises the sacrificer's desired

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1. सर्वे हैते यज्ञा योऽयमग्निश्चितः। स यत्पशुमालभते तदग्न्याधेयमथ यदुखां संभरति तान्यग्न्याधेयहवींष्यथ यद्दीक्षते तदग्निहोत्रमथ यद्दीक्षितः समिधावादधाति तेऽग्निहोत्राहुती।...यद्वनीवाहनं च भस्मनश्चाभ्यवहरणं तौ दर्शपूर्णमासावथ यद्गार्हपत्यं चिनोति तानि चातुर्मास्यान्यथ यदूर्ध्वं गार्हपत्यादा सर्वौषधात्ताऽइष्टयोऽथ यदूर्ध्वं सर्वौषधात्प्राचीनं चितिभ्यस्ते पशुबन्धा यऽएवैतेषु यज्ञेषु...Ś.B. X. 1. 5. 1-2.
2. सौम्योऽध्वरः प्रथमा चितिः। यत्प्राचीनं सवेभ्यो राजसूयो द्वितीया वाजपेयस्तृतीयाऽश्वमेधश्चतुर्थ्यग्निसवः पञ्चमी यैश्चितं सामभिः परिगायति तन्महाव्रतमथ यत्तत्रोद्गातुः पुरस्ताज्जघ्यं...यदूर्ध्वं व्वसोर्धारायै ते गृहमेधाऽएताव तो वै सर्वे यज्ञास्तानग्निनाऽऽप्नोति। Ś.B. X. 1. 5. 3.
3. Supra, pp. 132, 133.
4. सुपर्णोऽसि गरुत्मान् दिवं गच्छ स्वः पत। T. S. IV. 1. 10. 5; K.S. XVI. 8; M.S. II.7.8; V.S. XII. 4.

ascent to heaven. The Ś.B.[1] continues this idea. The evidence of the T.S.B. that this altar should be piled up by one, desirous of heaven[2], has already been noticed. The Baud. Śr. and Āp. Śulb. repeat the same.[3]

The destruction of and the protection from foes, and the attainment of material prosperity are taken to be the subsidiary objects[4] of the performance of this rite.

### *The Śyenaciti not the same as the Śyenayāga*

Attention has already been drawn to the Śyena rite as a magical and malevolent rite performed with a view to injure enemies. It has also been noticed that the two types of the Agniciti—Rathacakra and Praugaciti bear *ābhicārika* significance, for they are intended to repel or destroy foes.[5] However, the evidence is quite clear on this point that the Śyenaciti and the *ābhicārika* rite known as Śyenayāga, even if the latter may be derived from the former, are by no means identical.[6]

The procedure of the Śyenayāga, as described in a number of ritual texts, shows certain peculiar features which are conspicuous by their absence in that of the Śyenaciti. In the first place, the priests engaged in the Śyenayāga are to be selected from the Vrātyas[7] and they are required to wear deep red turbans and clothes.[8] Secondly, the *Yūpas* in this rite are made of *tilvaka* or *bādhaka* trees.[9] Thirdly, the *dakṣiṇā*, given in this rite, consists of animals with bodily defects, such as one-eyed and one-horned.[10] Lastly, it was an *ekāha*[11] or one-day sacrifice.

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1. Ś.B. VI. 7. 2. 6.
2. Supra. p. 131.
3. Baud. Śr. XVII. 28; Āp. Śulb., pp. 232, 256.
4. E. g. V. S. XI. 26.
5. Supra, p. 131.
6. Supra, p. 134.
7. व्रातीनानां यौधानां पुत्राननूचानानृत्विजो वृणीत श्येनस्य, Lāṭ. Śr. VIII. 5.1.
8. लोहितोष्णीषा लोहितवाससो निवीता ऋत्विजः प्रचरेयुरुपोतपरुषा उज्यधन्वानः। Lāṭ. Sr. VIII. 5.8; Kāt. Śr. XXII. 87; Āśv. Śr. III. 7.4; Āp. Śr. XXII. 4. 23.
9. तैल्वको बाधको वा यूपस्य Ṣaḍ. B. III. 8, pp. 24-25; Kāt. Śr. XXII. 81.
10. नव नव दक्षिणा इति नववर्गान्यथोत्साहं दद्यात् काणखोरकूटवण्डानाम्। Lāṭ. Śr. VIII. 5.16; Cf. Kāt. Śr. XXII. 91.
11. Kāt. Śr. XXII. 1; for other 'ekāha' rites involving similar ceremonies, see Pañcaviṁśa Brāhmaṇa, XVI-XIX.

As against this, the Agnicayana, being an *aṅga* of the Somayāga, required sixteen priests—Adhvaryugaṇaḥ, Brahmagaṇaḥ, Hotṛgaṇaḥ and Udgātṛgaṇaḥ, each group comprising four learned Brāhmaṇas, and not Vrātyas. The same holds good for the Śyenaciti also which is the principal type of the Agniciti. Further, unlike the priests of the Śyenayāga, they are not to appear in any peculiar dress. The wood[1], used in the performance of this rite, is of *khadira*, *palāśa*, *udumbara*, *kārṣmarya*, *vikaṅkata* and *śamī* and not of *tilvaka* or *bādhaka* as in the Śyenayāga. Finally, the *dakṣiṇā* of animals with bodily defects is simply inconceivable in the context of the Śyenaciti the main purpose of which is to attain heaven.

In the Śāṅk. Śr.[2] there is reference to the varieties of the *abhicāra* rite, viz. Sandaṁśa, Iṣu, Vajra, Śyena, Ajira etc. These are malevolent rites intended to bring about the destruction of foes. In the Śabarabhāṣya,[3] these rites are dubbed as immoral as they involve *himsā*. The Śyenaciti, however, is not to be confused with this *ābhicārika* Śyena rite.

### *Shape and Size of the Śyenaciti*[4]

The Śyenaciti is piled in the shape of a flying *Śyena*[5] (hawk) with specially prepared bricks which are laid down according to a definite ritualistic procedure,[6] unlike that followed in the construction of a regular brick structure in which bricks are placed upon one another.

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1. खादिरीं पालाशीमौदुम्बरीमर्कमयीं कार्ष्मर्यमयीं वैकङ्कतीं शमीमयीं वा यो वा यज्ञियो वृक्षः फलग्रहिः। Āp. Śr. XVI. 1.7.
2. संदंशानुस्तोमाविषुवज्रौ श्येनाजिरौ मृत्यवन्तकौ क्षुरवपिशीर्षच्छिदौ महः श्येनश्चाभिचरणीयाः। Śāṅk. Śr. XIV. 22. 4.
3. कोऽनर्थः? यः प्रत्यवायाय, श्येनो, वज्रः, इषुरित्येवमादिः। तत्र 'अनर्थो धर्मउक्तो मा भूत्. . .। हिंसा हि सा. . .। Mīmāmsādarśanam I. 1. 2; also Śabarabhāṣya, tr MM. G N. Jha, vol. I, p. 7.
4. The detailed discussion of the measurements of the Śyenaciti on the basis of the Śulba Sūtras shall be taken up in a subsequent note. Here, it is proposed to notice only the general features of it. Howevei, see Baudhāyana Śulba, Āpastamba Śulba, Kātyāyana Śulba, Mānava Śulba, Maitrāyaṇiya Śulba and Varāha Śulba; also Thibaut, The Śulbasūtras; Bibhutibhusan Dutta, The Science of the Śulba.
5. वयसां वा एष प्रतिमया चीयते। Āp. Śulb., p. 128. यदग्निरित्युत्पततां छाययेत्यर्थः। Com. of Kapardi on ibid. पततः श्येनस्य पक्षौ. . .। Com. of Sundararāja on Āp. Śulb., p. 298. वयसामुत्पततां. . .। Ibid. p. 235.
6. चीयते इति निर्दिश्यते; न चिनुयाच्चेतव्यमिति वा। Kapardibhāṣya on the Āp. Śulb., p. 129.

We find that emphasis is laid on the shape of the altar resembling the natural *Śyena*. There is a clear provision for the head of the bird also. It has been mentioned that the general features of the *Śyena* are long and outstretched wings which are curved, a tail comparatively narrow near the body and broad at the end, a large body (*ātmā*) and a head.[1] The head and the body should be somewhat oval (*īṣanmaṇḍalaḥ*).[2]

The Āp. Śulba. refers to the three parts[3] of the wing – *pakṣa*, *pakṣāgra* and *pakṣamadhya* (the joint of the wing and body).

The fire altar, on the whole, measures 7 *puruṣas*.[4] The number 7 possesses a mythological significance. According to the Ś.B.[5], Puruṣa Prajāpati was created by gods by transforming 7 *puruṣas* into one. Thus, the fire altar symbolising Prajāpati is also to measure 7 *puruṣas*, the body measuring 4 *puruṣas* and the wings and the tail 3. Each wing as well as the tail is to measure 1 *puruṣa*.

In the Āp. Śulb[6]., however, it is laid down that the body should measure 2 *puruṣas* and its width should be 2.5 *puruṣas*. Thus the cross measurement across the body and the two wings (each measuring *puruṣa*) extended by an ell, gives the total length of 33 ft. 6 ins.

### *The Sacrifice of the Five Victims*

Here it is proposed to discuss the rite of the sacrifice of the five victims— a man, a horse, a bull, a ram and a he-goat, an essential ingredient of the Agnicayana by analysing the evidence of the texts of the different schools. The

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1. वक्रपक्षो व्यस्तपुच्छो भवति। Āp. Śulb., p. 232. . . .श्येन इव चेतव्यः श्येनचित् तदाकारं चिन्वीत। . . . अनृजुपक्षः व्यस्तपुच्छोऽसंकोचितपुच्छः। Com. of Kapardi on ibid, p. 232. एवमिव हि श्येनस्य वर्षीयांसौ पक्षौ पुच्छाद्वक्रौ सन्नतं पुच्छं दीर्घं आत्माऽमण्डलं शिरश्च। Āp. Śulb., p. 290.
2. Com. of Karvinda on Āp. Śulb., p. 295.
3. पक्षाग्रे . . .पक्षाग्रमुत्सृज्य मध्ये पक्षस्य. . .पक्षाभ्यये . . .। Āp. Śulb., pp. 258-259.
4. सप्तपुरुषानभ्यग्निचिन्नमत्ति। K.S.B., XX. 3. सप्तपुरुषान्प्रभिमीते सप्तभ्य एव पुरुषेभ्यो लोकं विन्दत्या सप्तमात्पुरुषादन्नादो भवत्यरत्निमात्रं, पक्षयोरुपदधाति, M.S.B. III. 2. 4. स वै सप्तपुरुषो भवति. . .आत्मा त्रयः पक्षपुच्छानि चत्वारो हि तस्य पुरुषस्यात्मा त्रयः पक्षपुच्छानि, Ś.B. X. 2.2. 5.
5. यान्वै तान्सप्तपुरुषान्। (ने) एकं पुरुषमकुर्व्वन्त्स प्रजापतिरभवत्स प्रजाऽसृजत etc. Ś.B. X. 2. 2. 1.
6. आत्मा द्विपुरुषायामोऽध्यर्धपुरुषव्यासः। Āp. Śulb., p. 237.

Śukla Yajurveda School regards it as the primary rite to be performed at the very beginning.[1] But in the texts of the Kṛṣṇa Yajurveda, however, it occurs along with the *Sāmidhenī* verses at a later stage after the preparation of the Ukhā.[2] The heads of these victims are to be placed in the first layer of the altar.

Let us take up the Kṛṣṇa Yajurveda School first. In the T.S.[3] these sacrificial victims have been classified into *dvipada* and *catuṣpada*. The T.S.B. gives detailed provisions for making the human heads *medhya* or fit for sacrifice and for the restoration of life to it. The head of the human victim, which is initially considered *amedhya*, is to be approached and treated with 21 beans and thus made fit for sacrifice.[4]

Commenting on the passage in question, Sāyaṇa[5] explains that the unsacrificial portion of the head is taken out and then, by treating with 21 *māṣas* or beans it is made *medhya*. The rite of the restoration[6] of life is performed by placing the head on an ant-hill with seven holes, which is also intended to make it fit for sacrifice. Then the *Yamagāthā* is recited with a view to redeem the head from Yama.[7] The provision for the restoration of life to the human head and the recitation of the *Yamagāthā* with the expression 'Comrades of death' occurring in it, clearly indicate that the actual sacrifice of a human victim is intended here.

The other four animal heads required are of a horse, a bull, a ram and a he-goat.[8]

The Sūtras of the Kṛṣṇa Yajurveda School closely follow the line laid down in the T. S. B. However, they contain some additions and variations also.

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1. Ś.B. VI. 2.1.; Kāt. Śr. XVI. 5.
2. T.S.B. V. 1.8, 9; Āp. Śr. XVI. 6, 7.
3. पशनां द्विपदां चतुष्पदाम्। T.S. IV. 2. 10. Cf. K.S. XVI. 17; M. S. II. 7. 17.
4. एकविꣳशत्या माषैः पुरुषशीर्षमच्छैत्यमेध्या वै माषा अमेध्यं पुरुषशीर्षमेध्यैरेवास्यामेध्यं निरवदाय मेध्यं कृत्वाऽऽहरति। T.S. P: V. 1. 8.
5. 'अमेध्यैः' 'माषैः' शिरोनिष्ठम् अमेध्यभागं निःसार्य तच्छिरो यज्ञयोग्यं कृत्वा समानयति। Sāyana on T. S. B. V. 1.8, p. 105.
6. व्यृद्धं वा एतत् प्राणैरमेध्यं यत्पुरुषशीर्ष सप्तधा वितृण्णां वल्मीकवपां प्रति नि दधाति सप्त वै शीर्षण्याः प्राणाः प्राणैरेवैनꣳसमर्द्धयति मेध्यत्वा यत्। T. S. B. V. 1. 8.
7. यावन्तः वैमृत्युबन्धवस्तेषां यम आधिपत्यं परीयाय यमगाथाभिः परिगायति यमादेवैनद्वृङ्क्ते। T. S. B. V. 1.8.
8. E. g. पुरुषोऽश्वोगौरविरजो. . .एतावन्तो सर्वे पशवो, Ś. B. VI. 2. 1. 15; Baud. Śr. X. 9.

According to the Baud. Śr.[1], the human head may be obtained without actually killing a man; it may be of a Vaiśya (and not of a Brāhmaṇa, Rājanya or Śūdra), killed in battle. Out of the heads of the other four victims – horse, bull, ram and he-goat — that of the horse may also be of one killed in battle. The method of obtaining the two heads and the specification of the caste of the human victim are additional rules prescribed by the Śūtrakāra. The Āp. Śr. further extends the option by laying down that the human head may be of a Vaiśya or a Rājanya, either killed by an arrow or lightning-stroke.[2] The Vaik. Śr.[3] and the Sat. Śr.[4] repeat the same. The Āp. Śr.[5] prescribes additional rules that for the purpose of obtaining the heads, the four animals should be uncastrated and that the heads of all the five victims should be coated with clay. Unlike the Baud. Śr., Āp. Śr., Vaik. Śr. and Sat. Śr. do not recognise the head of a horse killed in battle. They are in favour of actually killing a horse for this purpose.

The Baud. Śr. mentions only 7 beans in connection with making the head *medhya*, but the Āp. Śr., Vaik. Śr. and Sat. Śr. refer to 28 beans.[6] Further, according to Baud. Śr., all the heads should be placed on the ant-hill for the purpose of the restoration of life, but the Āp. Śr., Vaik. Śr. and Sat. Śr.[7] follow the T.S.B. here and lay down that only the human head should be placed on it.

Now let us examine the evidence of the Śukla Yajurveda School in this connection. The V.S.[8] also refers to two classes of *paśus – dvipada* and *catuṣpada*. The Ś.B. gives a detailed account of the theory of the *pañcapaśu*. It is stated that Prajāpati was at one time searching for Agni who saw five animals – the *puruṣa* (man), the horse, the bull, the ram and the he-goat and entered into them. In the course of his search for Agni, Prajāpati also saw these five animals. As they were seen by him they are called *paśu*. Then he wished to fit those animals--

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1. संग्रामे हतयोरश्वस्य च वैश्यस्य च शिरसी दीव्यन्त ऋषभं पचन्ते वृष्णि च बस्तं च। Baud. Śr. X. 9.
2. वैश्यस्य राजन्यस्य वेषुहतस्याशनिहतस्य वा। Āp. Śr. XVI. 6. 2.
3. Vaik. Śr. XXIX/ XVIII. 3.
4. Sat. Śr. XI. 1. 67.
5. . . .पशूनालभते मुष्करान्। Āp. Śr. XVI. 7.1. अपि वा संज्ञप्तानां शिरांसि प्रच्छिद्य मृदा प्रलिप्य निदधाति। Ibid, XVI. 7.12. See also Vaik. Śr. XXIX/XVIII. 4.
6. Baud. Śr. X.9; Āp. Śr. XVI. 6.2; Vaik. Śr. XXIX/XVIII. 3; Sat. Śr. XI.I.67 also prescribes the option of 24 beans.
7. Baud. Śr., ibid; Āp. Śr. XVI. 6.3; Vaik. Śr. XXIX/XVIII. 3; Sat. Śr. XI.I. 68.
8. V.S. XIII. 50.

the form of Agni—into his own self. He sacrificed them for different gods – the *puruṣa* for Viśvakarman, the horse for Varuṇa, the bull for Indra, the ram for Tvaṣṭṛ and the he-goat for Agni. It is emphasised that he slaughtered them in the sacrifice. In the Agnicayana the sacrificer imitates this action of Prajāpati and while doing so he makes a home for Agni, for whom these animals are conceived as food.[1]

The *paśus* are slaughtered according to their form and excellence.[2] Thus *puruṣa* (man) is slaughtered first because he is the foremost of all animals.[3] This idea goes back to the Puruṣasūkta of the R. V. where it is stated that *puruṣa* is the first-born.[4] There is also the provision for ropes (*raśanā*[5]) which may be either all alike for all the *paśus* or varying in length – the longest one for the man and in decreasing order, the shortest for the last, i.e. the he-goat. Unlike the texts of the Kṛṣṇa Yajurveda School, the Ś.B. makes no mention of making the heads *medhya* by treating it with the *māṣas* and by placing it near the ant-heap.

Besides the orthodox and general practice of obtaining the five heads by actually sacrificing the five animals including man, the Ś. B. also notices certain variations in the practice but disapproves each of them. It refers to a practice of obtaining the heads in a manner different from that mentioned above, that is, without performing the animal sacrifice and slaughtering the victims.[6] Sāyaṇa[7] explains that it may be by buying, begging or other means referred to in the Kāt. Śr. The view of the Ś.B. is that these heads are unpropitiated and should not be used. It mentions one Āṣāḍhi Sauśromateya who was overtaken by death just after a sacrifice, in this manner, was performed for him.[8] There was another practice of making gold heads and using them in the Agnicayana. This text

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1. आयतनमेवैदग्नये करोति . . . पशवस्तद्यावदन्नं। Ś.B. VI. 2. 1. 14,15.
2. यथापूर्वं यथाश्रेष्ठमालभते। Ś.B. VI. 2.1.18.
3. पुरुषं प्रथममालभते। पुरुषो हि प्रथमः पशूनाम्। Ś.B. VI. 2.1.18.
4. पुरुषं जातमग्रतः, R.V. X. 90. 7.
5. तेषां व्विषमा रशनाः स्युः। पुरुषस्य व्वर्षिष्ठाऽथ हृतीयस्यथ हृतीयसी . . . सर्व्वास्त्वेव समाः स्युः . . . सर्व्वे सदृशाऽअग्नयो हृ्च्यन्ते। Ś.B. VI. 2. 1. 19.
6. तद्धैके। (कऽ) इत्येवैतानि पशुशीर्षाणि वित्त्वोपदधत्युभयेनैते पशव इति। Ś.B. VI. 2.1.37.
7. S.B.E., vol. XLI, pt. III, p. 170, fn. 1.
8. अनाग्रीतानि हि तानि तद्ध तथाऽऽषाढेः सौश्रोमतेयस्योपदधुः स ह क्षिप्रऽएव ततो ममार। Ś.B. VI. 2.1.37.

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deprecates it by declaring that these are false *iṣṭakās* and no heads of victims.[1] A third one was of using earthen heads which has also been disapproved.[2] The Ś.B. lays down in an emphatic manner that the way to obtain these heads should be by actually slaughtering the five victims.[3]

The Ś.B. further adds[4], in the same connection that at that time only two he-goats were slaughtered – one for Prajāpati and another for Vāyu. Though it appears to be like an option for the sacrifice of the five victims, it may be an addtional rite. In the T.S.B.[5] also the sacrifice of an animal for Prajāpati is an additional one performed to conclude the rite of the *iṣṭakāpaśu*, requiring compulsorily the sacrifice of five victims.

The Ś.B.[6] appears to lay down an option when it states that the hornless bearded he-goat contains the forms of all the five animals and that by slaughtering this one, all the five ones are slaughtered. It is significant to notice that the Vaik.[7] Śr., belonging to the Kṛṣṇa Yajurveda, also notices the alternative practice of obtaining only one head instead of five for this purpose.

The Kāt. Śr. lays down certain additional and optional practices which are not found in the Ś.B. The human victim required for the purpose of obtaining the head may be either a Vaiśya or a Rājanya.[8] This we find in the Āp. Śr. also which belongs to the other school.[9] There is also a provision in the Kāt. Śr. for putting *tṛṇa* in the throat of the five victims before they are slaughtered.[10] It is to be noted that the *puruṣa* is to be slaughtered, according to this text, in an enclosure.[11] Then follows the rite of *prāṇaśodhana* either of the he-goat only

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1. हिरण्मयान्यु हैके कुर्वन्ति। (न्त्य) अमृतेष्टकाऽइतिव्वदन्तस्ता ह ताऽअमृतेष्टका न हितानि पशुशीर्षाणि। (Weber and Eggeling, however, accept the reading 'अनृतेष्टका' in place of the second 'अमृतेष्टका'). Ś.B. VI. 2.1. 38.
2. मृन्मयान्यु हैके कुर्व्वन्ति. . . न तथा कुर्यात्। Ś.B. VI. 2.I. 39.
3. एतानेव पञ्च पशूनालभेत, Ś.B. VI. 2.1. 39.
4. अथैतर्हीमौ द्वावेवालम्भ्येते प्राजापत्यश्च व्वायव्यश्च। Ś.B. VI. 2.1.39.
5. प्राजापत्येन संस्थापयति। T. S. B. V. 1. 8.
6. यत्तूपरो लप्सुदी. . . यदजस्तदजस्य तद्यदेतमालभते तेन हैवास्यैते सर्व्वे पशवऽआलब्धा भवन्ति. . . Ś.B. VI. 2.2.15.
7. . . . यदि वायव्य एव तस्य शिरः सर्वशिरःस्थाने भवतीत्येके। Vaik. Śr. XXIX/XVIII. 6.
8. वैश्यः पुरुषो राजन्यो वा। Kāt. Śr. XVI. 17.
9. Supra, p. 141.
10. कण्ठेषु तृणमन्तर्द्धाय शिरांस्यादत्ते। Kāt. Śr. XVI. 18.
11. परिवृते पुरुषसंज्ञपनम्। Ibid, XVI. 14.

or of all.[1] Then, evidently with a view to make them *medhya*, the heads are to be anointed with *ghṛta* either in complete form as they are or after removing skin, flesh and brain-matter from them.[2]

After laying down rules for the normal practice of obtaining the heads by the sacrifice of the five victims, Kāt. Śr.[3] also mentions the options in this respect, namely, the heads obtained by a method other than the actual sacrifice or gold models or terracotta imitations. It is significant to note that the Ś.B.[3a] notices these variations but does not recognise them as options.

In the Śāṅk. Śr.,[4] belonging to the R. V., we find reference to the five sacrificial victims – man, he-goat, ram, bull and horse. There is also an indication of the sacrifice of a hornless goat[5] for Prajāpati or Vāyu as a substitute for the sacrifice of the five victims. Variations[6] in this practice were followed by different *Śākhās* of the same school.

After removing the heads for the purposes of sacrifice, the trunks of the victims were thrown into water[7] which was used for making the bricks. In the earlier texts of the Kṛṣṇa Yajurveda, we do not find any specific mention of the practice of throwing the trunks into water. The Āp. Śr.,[8] which is a late production of the Taittirīya School, adopts this practice which evidently shows the influence of the other school.

After the sacrifice of the five victims, there follow a number of ceremonies leading to the preparation of the fire-pan and placing of fire in it. According

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1. अजस्य शुन्धति प्रचरणयोगात्। सर्वेषां वाविशेषात्। Ibid, XVI. 15, 16.
2. त्वङ्मस्तिष्कोद्धृतानि घृताक्तानि शिरांसि निदधाति। सकलानि वा। Ibid, XVI. 30, 31.
3. अन्यानि वा हिरण्मयानि वा मृन्मयानि वानालभ्यैतान्। Ibid, XVI. 32.

3a. Ś.B. VI. 2. 1. 38, 39.

4. पुरुषोऽजोऽविको गौरश्व इति पञ्च पशवः। Śāṅk. Śr. IX. 23. 4.
5. अजो वा तूपरः। Ibid, IX. 23. 5.
6. पुरुषो वैश्यो राजन्यो वा। अजः छागः। अविर्मेषः। गौरश्वश्च। पशुशब्दः पुरुषेऽपि द्रष्टव्यः। इति पञ्च पशवः। इति प्रकार-प्रदर्शनार्थः एवंप्रकारा अध्वर्युशाखासु बहवो विकल्पाः। अजो वा एक एव पशुर्भवति। तूपरो विषाणरहितः। Śāṅk. Śr., Bhāṣya of Varadattasuta Anartīya, vol. III, p. 24.
7. कुसिन्धान्यप्सु प्रा॰प्लावयत्। Ś.B. VI. 2.1.7. Sāyaṇa explains 'कुसिन्धानि' as 'मूर्द्धरहितानि शरीराणि' चतुर्णामप्सु कायप्रासनम्। Kāt. Śr. XVI. 19.
8. अपः कबन्धान्यभ्यवहरन्ति। Āp. Śr. XVI. 8.1.

to the Saṁhitās of the Kṛṣṇa Yajurveda, T.S. (Brāhmaṇa) and the Sūtras of the Taittirīya School,[1] the first rite is the Savitā offering in which god Savitṛ is invoked to give inspiration for the sacrifice. In the Ś.B. and Kāt. Śr., belonging to the Śukla Yajurveda School, however, we find a minor variation in this procedure; here this rite is performed after getting the animals ready for bringing the clay and making the spade for digging it.[2] The spade, according to the T.S.B.[3], is made of reed; it is perforated and a fathom long. It is also pointed at both the ends and is of an undefined length. The Baud. Śr.[4] provides for a gold spade also.

In the Āp. Śr.[5], however, we find the provision for the spade of *veṇu* which may be sharp at both the ends. The size of the spade may be a *prādeśa* or *vyāyāma* (a fathom) or an *aratni* or of any length. In the Ś. B.[6] we find provision for spade made of bamboo. It should be spotted and a span or a cubit (an arm's length) in length. It should be sharp on one side or on both sides. The Kāt. Śr.[7] refers to the option of gold spade also. But the main provisions in this respect are almost the same as in the Ś.B. It should be of bamboo and should measure a *prādeśa* or an *aratni*.[8] It is significant that in laying down the option of a gold spade we find an agreement between the Kāt. Śr. and Baud. Śr.

As regards the animals intended for the purpose of bringing the clay, we find the provision for two animals, a horse and an ass in the Saṁhitās[9], Brāhmaṇas[10] and the Sūtras[11] of the Kṛṣṇa Yajurveda. Though in the light of the

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1. T. S. IV. 1. 1; K. S. XVIII. 19; M. S. III. 1. 1, 2. सवित्राणि जुहोति etc. T. S. B. V. 3.1. देव सवितरिति यजुरेतदृचा वा यजुषा etc. Baud. Śr. X. 2. देवस्य त्वा सवितुः etc. Āp. Śr. XVI. 1. 7.
2. Ś. B. VI. 3. 2. 1 ff.; Kāt. Śr. XVI. 48, 49.
3. वेणोः सुषिरं सुषिराभ्रिवति. . . उभयतःक्ष्णूर्भवति। व्याममात्री भवति।. . . अपरिमिता भवति वैणवी भवति। T. S. B. V. 1. 1.
4. हिरण्यमभ्रिमादाय, Baud. Śr. X. 3.
5. वैणवीं कल्माषीं सुषिरामसुषिरां वोभयतः क्ष्णूम्, Āp. Śr. XVI. 1. 7.
6. Ś. B. V. 3. 1. 31 ff.
7. हिरण्मयीमेके, Kāt. Śr. XVI. 49.
8. वैणवी. . . प्रादेशमात्र्यरत्निमात्री वा। Ibid, XVI. 48.
9. इमामगृभ्णन् रशनामृतस्य. . . प्रतूर्त्तं वाजिन्नाद्रव वरिष्ठामनु. . . युञ्जाथां रासभं. . . अग्निं भरन्तमस्मयु। T. S. IV. 1. 2. Cf. K. S. XVI. 1; M. S. II. 7. 2.
10. प्रतूर्त्तं वाजिन्नाद्रवेत्यश्वमभिदधाति. . . युञ्जाथां रासभं युवमिति गर्दभमसत्येव गर्दभं प्रतिष्ठापयति. . . । T. S. B. V. 1. 2; K. S. B. XIX. 2; M. S. B. III. 1. 3.
11. इमामगृभ्णन्रशनामृतस्येति तयाश्वमभिदधाति प्रतूर्त्तं वाजिन्नाद्रवेत्येवमेव. . . तयागर्दभमभिदधाति युञ्जाथां रासभं युवं

Ś.B. and the commentary of Mahīdhara, Griffith[1] opines that the address to Aṅgiras in the V.S. implies the presence of a goat, it is to be noted that the horse and ass alone are mentioned specifically in this text and not the he-goat. This is obviously an innovation found in the Ś.B. In the Śukla Yajurveda School, as the evidence of Ś.B.[2] and Kāt. Śr.[3] shows, we find three animals, a horse, an ass and an *aja* (he-goat). South of the Āhavanīya, the animals are made to stand facing the east in this order – first the horse, then the ass and the he-goat respectively.

In the Sūtras[4] of the Taittirīya School we find that the animals are fastened with halters. The evidence of Baud. Śr.[5] shows that the halter is either of *kuśa* or *muñjā*.

The Kāt. Śr., however, refers to the three animals each tied with a *pañcāṅga muñja*.

A clay ball[6] is placed in a rectangular pit in a front (to the east) of the Āhavanīya and then the ground is made even. Halfway between the Āhavanīya and the clay ball, he places the ant-hill clay. After the recitation of *mantras* and the Gārhapatya Agni being enkindled, the animals are taken to the lump of clay. The *anaddhā puruṣa* (the sham man) is to be seen. Then the ant-hill is taken and after seeing the clay ball through its hole, it is placed there. The horse is made to place its foot on the clay ball which is then marked with three lines with the spade and is dug up with it. Then *kṛṣṇājina* (black antelope hide) is spread with a lotus leaf,[7] on which the clay ball is placed.[8] The corners of the black antelope skin are tied with a *trivṛtā muñjā*[9] and the bundle is placed on the animals with the recitation

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. . . 1 Baud. Śr. X. 2. Cf. Āp. Śr. XVI. 2. 1, 2; Vaik. Śr. XXIX/XVIII. 1; Śat. Śr. XI. 1. 12, 13.

1. Griffith, V.S. XI. 45, 47 fns.
2. अश्वः प्रथमोऽथ रासभोऽथाज . . . । Ś. B. VI. 3. 1. 28.
3. आहवनीयं दक्षिणेन त्रिवृन्मुञ्जपञ्चाङ्गी बद्धास्तिष्ठन्ति प्राञ्चोऽश्वगर्दभाजाः पूर्वापरा रासभो मध्येऽश्वपूर्वाः । Kāt. Śr. XVI. 47.
4. Baud. Śr. X. 1; Āp. Śr. XVI. 2.1, 2.
5. रशने मौञ्ज्यौ वा कुशमय्यौ वा, Baud. Śr. X. 1. See fn. 3 above.
6. Baud. Śr. X. 1; आहवनीयस्य पुरस्तान्मत्या चतुरश्रे श्वभ्रे मृत्पिण्डमवदधाति भूमिसमम् । Kāt. Śr. XVI. 45.
7. Kāt. Śr. XVI. 58, 59, 65, 66.
8. Ś.B. VI. 4. 1. 7; Kāt. Śr. XVI. 66-69.
9. Ś.B. VI. 4.1.9; Kāt. Śr. XVI. 75.

of *mantras*.[1] While bringing the clay, the he-goat is first, then the ass, and the horse is the last. The Ś.B. offers an explanation for this order. "Inasmuch as the ass does not go first, either in going from here or in coming back from there, therefore, the Brāhmaṇa and the Kṣatriya never go behind the Vaiśya or Śūdra; hence they walk in this order to avoid confusion between good and bad. And, moreover, he (the sacrificer) thus encloses those two castes (Vaiśya and Śūdra) on both sides by the priesthood and nobility and makes them submissive.[2]" The sham man is seen again as before.[3] The lump of clay, brought by the animals, is placed in a fenced place situated to the north of the Āhavanīya fire, having its entrance towards the east,[4] in a fenced place situated to the north of the Āhavanīya having its entrance towards the east.

The procedure has been described above mainly on the basis of the Kāt. Śr. where we find an elaborate account thereof. In the Śrauta Sūtras of the Kṛṣṇa Yajurveda School we notice certain variations, besides that which pertains to the number of animals required for the purpose of bringing the clay. According to Baudhāyana[5] and Āpastamba[6], the horse should proceed first while going to take the clay. Here we find agreement between the two major Schools. But Āpastamba[7] lays down the option that the ass should also proceed first if the object is success in a sinful act and victory over enemies (*abhicāra*). Evidently, Āpastamba has here in mind a practice mentioned in the T.S.B. (V. 1.2) which prescribes that the ass should proceed first in case the object is to injure enemies. The texts[8] of the Taittirīya School agree on the point that the clay

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1. Ś.B. VI. 4.4.5; Kāt. Śr. XVI. 79.
2. S.B.E., vol. XLI, pt. III; VI. 4.4.13, p. 227. अश्वः प्रथमऽएति तस्मात्क्षत्रियं प्रथमं यन्तमितरे त्रयो व्वर्णाः पश्चादनुयन्त्यथ यदमुतऽआयतामजः प्रथमऽएति तस्माद्ब्राह्मणं प्रथमं यन्तमितरे त्रयो व्वर्णाः पश्चादनुयन्त्यथ यन्नैवेतो यतां नामुतो रासभः प्रथमऽएति तस्मान्न कदाचन ब्राह्मणश्च क्षत्रियश्च व्वैश्यं च शूद्रं च पश्चादन्वितस्तस्मादेवं यन्त्यपापवस्यसायाथो ब्रह्मणा चैवैतत्क्षत्रेण चैतौ व्वर्णाविभितः परिगृहणीतेऽनपक्रमिणौ कुरुते। Ś.B. VI. 4. 4. 13.
3. Kāt. Śr. XVI. 82.
4. Ibid, XVI. 83.
5. अश्वं च गर्दभं च तयोरेव, Baud. Śr. X. 1.
6. Āp. Śr. XVI. 2.
7. यदि कामयेत पापवस्यसं स्यादिति गर्दभप्रथमा गच्छेयुः। Āp. Śr. XVI. 2.4. Sāyana explains *pāpa:asyasam* as पापमेव वसु धनं यस्य कर्मणस्तत् पापवसु, अतिशयेन पापवसु तत् 'पापवस्यसं' अत्यन्तं निकृष्टमित्यर्थः। (T.S.B. V. 1. 2, vol. III., p. 22, 23). Keith has translated पापवस्यसं (H.O.S., vol. 19, p. 392) as 'confusion.' He has evidently missed the explanation of Sāyaṇa.
8. युञ्जाथा रासभं. . .अग्निं भरन्तमस्मयु, T.S. IV. 1.2. गर्दभ आसादयति स्थिरो भव etc. Baud. Śr. X. 4. स्थिरो भव वीड्वङ्ग इति गर्दभपृष्ठ आदधाति। Āp. Śr. XVI. 3.10

should be brought on the back of the ass only, as it is considered the carrier of Agni whereas in the procedure of the Śukla Yajurveda we find that all the animals are to be employed for this purpose.[1] Then again, the Sūtras[2] of the Taittirīya School further lay down that gold should be placed in the hoof of the horse at one stage while digging and taking the clay.

*Making of the Ukhā (The Fire-Pan)*

In the Taittirīya School[3] the making of the fire-pan begins with the invocation to Agni and other deities like Mitra and Rudras. The various acts involved in this rite are with a view to winning support, healing and freedom from obstacles for the sacrificer. The invocation to Agni and other deities occurs in the V.S.[4] also at the beginning of this rite.

According to the T.S.B.[5] *armakapāla* (potsherds from an ancient deserted site), *śarkarā* (sand), *ajaloma* (goat-hair) and *kṛṣnājinaloma* are to be mixed with the clay. In the Ś.B.[6] of the Śukla School it has been stated that the water of *palāśa* should be used for working the clay as the *palāśa* tree symbolises firmness. The provision has been laid down for mixing with clay, goat-hair and three kinds of powder—sand of gravel, stone, and iron-rust.[7] The Kāt. Śr.[8], belonging to the same school, follows the details of the Ś.B.

In the Āp. Śr.[9] of the Kṛṣṇa School we find greater detail regarding the materials to be mixed with clay which are *armakapāla*, bamboo-coal, rice-

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1. Kāt. Śr. XVI. 79.
2. दक्षिणेऽवान्तरशफे हिरण्यं निधाय, उत्तरेऽवान्तरशफे हिरण्यं निधाय, Baud. Śr. X. 3. Cf. Āp. Śr. XVI. 2.11; Vaik. Śr. XXIX/XVIII. 1.
3. T.S.B. V. 1.6. (अर्मकपालैः संसृजेत्यानि etc.).
4. V.S. XI. 49 ff.
5. चिरकालशून्यग्रामे भूमौ अवस्थितानि पुरातनानि अर्मकपालानि, तेषां प्राणिभिः अनुपजीवनीयत्वात्...न तु गृहोपकरणानि भाण्डानि। Sāyaṇa on T.S.B. IV. 1.6, p. 71.
6. पर्णकषायनिष्पक्वाऽएताऽआपो भवन्ति...Ś. B. VI. 5. 1. 1. Sāyaṇa explains 'पर्णकषायनिष्पक्वा' as 'पलाशपर्णक्वथिता'।
7. अजलोमैः संसृजति।...अथैतत्त्रयं पिष्टं भवति। शर्कराऽश्माऽयोरसस्तेन संसृजति...Ś.B. VI. 5.1.4, 6.
8. अजलोमभिः...शर्करायोरसाश्मचूर्णैश्च, Kāt. Śr. XVI. 87, 88.
9. अर्मकपालैः पिष्टैर्वैण्वङ्गारैर्व्रीहितुषैः पलाशकषायेण शर्कराभिः पिष्टाभिः कृष्णाजिनलोमभिरजलोमभिरिति, Āp. Śr. XVI. 4.1.

husk, (butea frondosa) *palāśa*-resin, sand, all powdered, along with *kṛṣṇājina* and *ajaloma*. Baudhāyana,[1] however, gives fewer details than Āpastamba.

It is significant to notice that the Sūtras of the Taittirīya School, on the whole, give fuller details in this respect. The evidence shows that *kṛṣṇājina-loma* was exclusively used by the Kṛṣṇa Yajurveda and iron-rust by the Śukla Yajurveda School.

Then the goddess Sinīvālī, who is described as a beautiful maiden, having fair braids (sukapardā), fair head-dress (sukurīrā) and as fair-limbed (svaupaśā[2]), is invoked to make the clay softer and initiate the preparation of the Ukhā by placing the clay in the hands of the Great Aditi.

Sāyaṇa gives the following details regarding the shape of the Ukhā, on the basis of the T.S.B. He says that it should consist of three parts[3] so as to look like three pots placed upon one another[4] with a chord round the neck or the junction of the first and second part[5] to represent symbolically the meeting of the three worlds[6] and also to make them firm. In the Ś.B.[7] this chord has been compared to the *rajju* or *pāśa* of Varuṇa and is made with the *mantra* V.S. XI. 59. There are four vertical bands representing the four quarters.[8] The vertical and horizontal belts are chords intended to strengthen

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1. अर्मकपालैः शर्कराभिरवाञ्जनपिष्टाभिरजलोमैः कृष्णाजिनलोमभिरिति। Baud. Śr. X. 5; Vaik. Śr. XXIX/XVIII. 1 closely follows Āp. Śr.
2. सिनीवाली सुकपर्दा सुकुरीरा स्वौपशा। सा तुभ्यमदिते मह ओखां दधातु हस्तयोः। T.S. IV. 1.5. Cf. K.S. XVI. 4; M.S. II. 7.5; V.S. XVI. 56; Ś.B. VI. 5.1.10; Baud. Śr. X. 5; Vaik. Śr. XXIX/XVIII. 1. 7. See also Sāyaṇa on T.S. IV. 1.5, vol. III, pp. 72 ff.
3. त्र्युद्धिं करोति त्रय इमे लोका etc. T.S.B. V. 1. 6.
4. यथा भाण्डस्य उपरि अन्यद्भाण्डं, तस्याप्युपरिपुनरन्यद्भाण्डमिति कक्षात्रयं, तथेयमेकैव उखा कक्षात्रया कार्या (Sāyaṇa on ibid); त्रीन् पिण्डान् संसृष्टां, Vaik. Śr. XXIX/XVIII. 1.
5. आदित्यै रास्नासि, T.S. IV. 1.4. रशनासदृशी भाण्डस्य गलगता रेखा 'रास्ना'। हे रेखे त्वम् 'आदित्यै' (भूमि-रूपाया उखाया) 'रास्ना' (काञ्चीगुणस्थानीया रशना) 'असि', Sāyaṇa on T.S. IV. 1. 5; see also Ś.B. VI. 5. 2. 11.
6. अत्र हैषां लोकानामन्ताः समायन्ति तदेवैनांस्तदृंहति। Ś.B. VI. 5. 2. 12.
7. व्वरुण्या वै. . . रज्जुः. . . Ibid, VI. 5. 2. 13.
8. अथ चतस्रऽऊर्ध्वाः करोति। दिशो हैव ता. . . Ibid, VI. 5. 2. 14.

the Ukhā.[1] The Ukhā has been described as *stanā*.[2] The Taittirīya[3] School favours *dvistanā* evidently because the upper and lower parts simulate two breasts. Ukhās with four and eight nipples or breast-like parts are also well known. The Taittirīya School also mentions a Ukhā with nine corners for the purpose of *abhicāra*.[4] But this type is unknown to the Śukla School.

According to the Ś.B[5]., the Ukhā should be a span high and a span wide at the top. Sāyaṇa, commenting on T.S. (V.1.5.), explains that it should measure one *prādeśa* (approximately 9 ins). Kātyāyana[6] essentially follows the Ś.B. He further lays down that in case where five animals are sacrificed it should measure 5 *prādeśas* or 1 *iṣu*[7] (*āyāma*).

Āpastamba[8] prescribes that the Ukhā should be either rectangular or round. It should be one span in height, one *aratni* in width and with a circumference of one *vyāyāma*. But it may also have different dimensions. Baudhāyana[9] also follows the same line.

After considering the details given in the various texts, we notice that the standard type of Ukhā, known to the two major Schools, should be one *prādeśa* in length and one *prādeśa* in width and should consist of three parts, the two horizontal and one vertical with a cordon at the junction of the first and second.

The great significance attached to the Ukhā may be known from the fact

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1. ताऽएताऽएतैस्यै भवन्ति। एतद्वाऽएताऽएतामस्तभ्नुवंस्तथैवैनामेतत्स्तभ्नुवन्ति तद्यदतऽऊर्ध्वं तदेतया तिरश्चया दृढमथ यदतोऽव्वक्तिदेताभिः। Ibid, VI. 5. 2. 15.
2. Ibid. VI. 5. 2.18, 19. (स्तना, द्विस्तना, चतुस्तना, अष्टस्तना etc.).
3. द्विस्तनां करोति, T.S.B. V. 1. 6. यथा योषितः स्तनौ एवमस्या उखाया द्वौ स्तनाकारौ मृदा निष्पाद्यौ—Sāyaṇa on T. S. IV. 1. 5. In T.S.B. V. 1.6. there is also reference to चतुस्तना and अष्टास्तना।
4. नवाश्रिमभिचरतः कुर्यात् त्रिवृतमेव वज्रं संभृत्य भातृव्याय प्रहरति स्तृत्यै। Ibid, V. 1. 6; also Baud. Śr. X. 5; Āp. Śr. XVI. 4. 11.
5. तां प्रादेशमात्रीमेवोर्ध्वां करोति। प्रादेशमात्रीं तिरश्चीं, Ś.B. VI. 5. 2. 8.
6. प्रादेशमात्रीं तिर्यगूर्ध्वां च। Kāt. Śr. XVI. 93.
7. पञ्चप्रादेशामिषुमात्रीं वा तिर्यक्पञ्चपशौ। Ibid, XVI. 94.
8. चतुरश्रां परिमण्डलां वा। प्रादेशमात्रीमूर्ध्वप्रमाणेनारत्निमात्रीं तिर्यक्प्रमाणेन व्यायाममात्रीं समन्तपरिमाणेन। अपरिमितां वा। Āp. Śr. XVI. 4. 7. He also refers to the practice of the Vājasaneyins in respect of the Ukhā, in case five animals are sacrificed. Ibid, XVI. 4. 8.
9. प्रादेशमात्रीमूर्ध्वामपरिमितां तिरश्चीं करोत्यथास्यै त्र्यङ्गुले वा चतुरङ्गुले वा रास्नां पर्यस्यत्यादित्यै। Baud. Śr. X. 5.

that it has been described as the head[1] of the sacrifice in the texts. The Ś.B.[2], however, describes it as the womb of Agni.

*The Aṣāḍhā*

In the Saṁhitās we find the same hymn[3] addressed to the most significant brick called *aṣāḍhā* which has been conceived, in all the schools, as the symbol of victory over foes. Evidently this connotation of the *aṣāḍhā* was fixed before the Saṁhitās of the different Śākhās came into existence. The T.S.B.[4] gives additional details. The term *devalakṣmam*, used to describe the brick, shows that it was engraved with the characteristic mark of the sacrifice. The other term *tryālikhitā*, used in this connection, has been explained by Sāyaṇa as *tripuṇḍavadrekhā*—three lines like the *tripuṇḍa*, the symbol of gods,[5] by which gods defeat the asuras. The Śrauta Sūtras of Baudhāyana, Āpastamba and Vaikhānasa preserve this tradition faithfully.[6] This brick was prepared by the sacrificer out of the same clay with which the Ukhā was prepared. The brick should be rectangular and *tryālikhitā*.[7] According to the Ś.B. also, it should be *tryālikhitā* and should measure one *pāda* (*pādamātrī*).[8]

We find a notable difference between the practices of the two major Schools. In the School of the Śukla Yajurveda[9] it is laid down that the brick should be prepared by the chief queen or chief wife of the sacrificer. According

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1. मखस्य शिरोऽसि, T.S. IV. 1. 5; मखस्तस्यैतच्छिरो यदुखा, T. S. B. V. 1. 6; Baud. Śr. X. 5; Āp Śr. XVI. 4. 4 and Vaik. Śr. XXIX/XVIII. 1 for the *mantra* of the T. S.
2. ह्येषा योनिरग्नेः, Ś.B. VI. 5. 2. 21.
3. अषाढासि सहमाना सहस्वारातीः सहस्वारातीयतः सहस्व पृतनाः सहस्व पृतन्यतः सहस्रवीर्या। T.S. IV. 2. 9; K.S. XVI. 16; M.S. II. 7. 16; V.S. XIII. 26.
4. देवलक्ष्मं वै त्र्यालिखिता तामुत्तरलक्ष्माणं देवा उपादधताधरलक्ष्माणमसुरा यं कामयेत वसीयान्त्स्यादित्युत्तरलक्ष्माणं तस्योपदध्याद्वसीयानेव भवति यं कामयेतपापीयान्त्स्यादित्यधरलक्ष्माणं तस्योपदध्यादसुरयोनिमेवैनमनु परा भावयति पापीयान्भवति। T. S. B. V. 2. 8.
5. त्रिपुण्डवद्रेखात्रयं सेयं त्र्यालिखिता तत्त्र्यालिखित्वं देवानां चिह्नम्...एनं (यजमानं) असुरजात्यनुसारिणं कृत्वा पराभूतं करोति। Sāyaṇa on T.S. IV. 2. 9.
6. Baud. Śr. X. 32; Āp. Śr. XVI. 5. 9, XVI. 24. 12, 13; Vaik. Śr. XXIX/XVIII. 1.
7. य उखां करोति सोऽषाढामेतस्या एव मृदस्तूष्णीं चतुरस्रां त्र्यालिखितामिष्टकां। Āp. Śr. XVI. 5. 4; Vaik. Śr XXIX/XVIII. 1.
8. Ś.B. VI. 5. 3, 2-4. यजमानपादमात्रीं त्र्यालिखिताम्। Kāt. Śr. XVI.
9. तस्याऽएतस्याऽअषाढां पूर्व्वां करोति।...तामेतस्याऽएव मृदः करोत्येषां ह्येव लोकानामियं महिषी करोति... Ś.B. VI. 5. 3. 1; Kāt. Śr. XVI. 90.

to the other school, the *yajamāna* himself should prepare it. In the T.S.B. there is no direct reference to the maker of the Ukhā. But in the Āp. Śr. and Vaik. Śr. the Ukhā and the *aṣāḍhā* both are prepared by the sacrificer.[1]

The three *viśvajyotis* bricks which are special ones, marked with three lines, are also prepared, according to the Ś.B.[2], by the sacrificer out of the same clay. Kātyāyana[3] also preserves this tradition. But this method of making these bricks is confined to the Śukla School only.

*Fumigation of the Ukhā and its Saṁskāra*

The procedure[4] for fumigation and *saṁskāra* of the Ukhā is mentioned in all the Saṁhitās, Brāhmaṇas and Śrauta Sūtras. Having dug a wide and spacious hole inside a shed[5] or near the Gārhapatya,[6] the Ukhā is placed upside down on sand.[7] Seven balls of horse-dung[8] or, according to the Baud. Śr.,[9] 21 balls of horse-dung and sheep-dung are placed.

The Adhvaryu fumigates the kiln with the fire taken from the Dakṣiṇā or Gārhapatya hearth.[10] The horse-dung is used because of the equation of horse with Prajāpati and Agni.[11] The number seven in this connection is also significant. The Ukhā is conceived as the head of the sacrifice and the head should have seven holes through which *prāṇa* may be infused.[12]

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1. Āp. Śr. XVI. 1.1, 2; Vaik. Śr. XXIX/XVIII. 1.
2. Ś.B. VI. 5. 3. 5.
3. इष्टकास्तु तिस्रो विश्वज्योतिषः पृथग्लक्षणास्त्र्यालिखिताः। Kāt. Śr. XVI. 106.
4. T.S. IV. 1. 6; K.S. XVI. 5. 6; M.S. II. 7. 6; V.S. XI. 57, 65; T.S.B. V. 1. 7; Ś.B. VI. 5. 3. 8-11, VI. 5. 4. 1-17; Baud. Śr. X. 6; Āp. Śr. XVI. 5; Vaik. Śr. XXIX/XVIII. 1; Kāt. Śr. XVI. 111 ff.
5. शालामुखबिलमिवावटं खानयति . . . Baud. Śr. X. 6.
6. अग्रेण गार्हपत्यमवटं खात्वा। Āp. Śr. XVI. 5. 8.
7. Ś.B. VI. 5. 4. 3, 4.
8. सप्तभिः . . . अश्वशकेन धूपयति T. S. B. V. 1. 7; Ś. B. VI. 5. 3. 9; Āp. Śr. XVI. 5. 6; Kāt. Śr. XVI. 108 ff;
9. एकविंशति वृष्णो अश्वस्य शकृत्पिण्डान् . . . आदीप्य। Baud. Śr. X. 6.
   Sheep (वृष्ण) is mentioned in this connection in the Āp. Śr. (XVI. 5. 6) and Vaik. Śr. (XXIX/XVIII. 1) also. The former regards this practice as belonging to another sub-school.
10. Āp. Śr. XVI. 5. 7; Kāt. Śr. XIV. 112.
11. T.S.B. V. 1. 7; Ś.B. VI. 5. 3. 9.
12. T.S.B. V. 1. 7.

The hole is dug with an invocation to Aditi to avoid injury to earth. The Ukhā is placed in it in an inverted position[1] with one invocation to the wives of gods, as they are supposed to have fashioned it in times of yore. In course of fumigation, invocations are made to gods like Mitra and Vasu. The Ukhā is then cleansed of the ashes with an invocation to Savitṛ. Goat's milk is then poured into it[2] in order to avoid injury to it. The goat's milk is chosen because goat has sprung from the head of Prajāpati or Agni and Agni would not injure its own self. Another explanation is that, as the goat eats all kind of herbs, its milk is efficacious.

The Ukhā and the *aṣāḍhā* are baked in the same pit.[3] According to the Ś.B., the *viśvajyotis* bricks are also baked along with them.[4]

Incidentally, it is to be noticed that the literary evidence throws light on the practice of inverted firing.[5]

*The Making of the Bricks*

In the Kāt. Śr. we find the rules regarding the preparation of other bricks after the making of the Ukhā and the three *viśvajyotis* bricks and certain other ceremonies like fumigation of the Ukhā. The bricks of the first, third and fifth layers are marked with three lines and those of the remaining ones, i.e. second and fourth, with unlimited lines.[6] Then they are baked.[7]

Āpastamba[8] lays down that after the *dīkṣā* the sacrificer performs the ceremony of making the bricks which are *pādamātrī*, *aratnimātrī*, *urvasthimātrī* and *aṇūkamātrī*. They are marked with three lines and are so baked as to become reddish. They should not be broken, black or spotted.

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1. Infra, fn. 5.
2. T.S.B. V. 1.7; Ś.B. VI. 5. 4. 1 ff.
3. T.S. IV. 1. 6; T.S.B. V. 1. 7.
4. Ś.B. VI. 5. 4. 4, 8, 9.
5. अथोखामवदधाति (अवाङ्मुखामवदध्यात् – Sāyaṇa) Ś.B. VI. 5. 4. 4.
6. इष्टकाक्रियास्त्र्यालिखितानाम्। Kāt. Śr. XVI. 124. अपरिमितालिखिता वोत्तरयोः। Ibid, XVI. 125.
7. पूर्ववदग्निः पाके। Ibid, XVI. 126.
8. दीक्षितस्येटकाः करोति...Āp. Śr. XVI. 13.5....पादमात्र्योऽरत्निमात्र्य उर्वस्थिमात्र्योऽणूकमात्र्य... त्र्यालिखिताश्च। Ibid, XVI. 13.6. निर्मन्थ्येन लोहिनीः पचन्ति। Ibid, XVI. 13. 7 खण्डां कृष्णां लक्ष्मणां च नोपदध्यात्। Ibid, XVI. 13. 9.

Vaikhānasa[1] refers to *caturasrā* bricks and Satyāṣāḍha[2], to both *caturasrā* and *maṇḍaleṣṭakā*. Other details are the same as in the Āp. Śr.

According to the Ś.B.,[3] 10800 bricks are required for all the five layers. The evidence of Kātyāyana,[4] however, shows that the number of *lokamprṇā* (space filler) bricks is not fixed and, as such, the total number of bricks may vary.

*Agni-Upādhāna and Agnidhāraṇa*

After the fumigation and the *saṁskāra* of the Ukhā follow the rites of Agni-Upādhāna including the taking of the Ukhā to the *cayanadeśa* (area of the fire altar). All these rites are performed with a view to place the fire into the fire-pan. These rites, in their essential form, have been prescribed in the Saṁhitās.[5]

In the Brāhmaṇas we find further elaborations. The T.S.B. prescribes the *dīkṣā* or the initiation or consecration ceremony with six *mantras*[6] identified with six seasons. It is further stated that the consecration takes place with seven *mantras* for the metres are seven.[7] Sāyaṇa explains that this rite should be performed with a *homa*.[8]

In the Ś.B. and Kāt. Śr.[9] there is provision for *dīkṣā* more than once. The initiation starts on the day of the new moon[10], i.e. a week after the making of the Ukhā. It starts with the offering of an animal cake (Paśupuroḍāśa) to Vaiśvānara on twelve pot-sherds[11] and imposes upon the sacrificer a particular discipline that he must not sleep upon a couch nor eat flesh nor do sexual intercourse.[12] According to the Ś.B., this is the first *dīkṣā* but it is not a *dīkṣā*

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1. Vaik. Śr. XXIX/XVIII. 11.
2. Sat. Śr. XI. 5. 18.
3. S.B.E., vol. XLI, pt. IV, p. 22 fn. 1.
4. अपरिमितेष्टको वा। Kāt. Śr. XVII. 162.
5. T.S. IV. 1. 9,10; IV. 2. 2,3; K.S. XVI. 7. 10, 19; M.S. II. 7. 8,10; V.S. XI. 66-82; XII. 1-29; XII. 31-43.
6. षड्भिर्दीक्षयति, T.S.B. V. 1. 9.
7. सप्तभिर्दीक्षयति सप्त छन्दांसि, T.S.B. V. 1. 9; K. S. B. XIX. 10; M. S. B. III. 1. 9
8. होमेन दीक्षाख्यं संस्कारं etc. (Sāyaṇa on T.S. IV. 1. 9).
9. Ś.B. VI. 6. 1. 1; Kāt. Śr. XVI. 127.
10. Ś.B. VI. 2. 2. 26; Kāt. Śr. XVI. 127.
11. Ś.B. VI. 2. 1. 35; Kāt. Śr. XVI. 128.
12. Ś.B. VI. 2. 2. 39.

in the regular sense because the sacrificer does not possess a girdle or black antelope hide.[1] Of that animal he should offer no *samiṣṭayajus*[2]. The real *dīkṣā* is discussed in the Ś. B. (VI. 6) afterwards. It consists of a triple offering, a cake to Agni-Viṣṇu on 11 sherds, one to Vaiśvānara on 12 pot-sherds and a pap for the Ādityas.[3]

Kātyāyana[4] closely follows the Ś. B. and mentions the first *dīkṣā* consisting of a Paśupuroḍāśa to Vaiśvānara. But he permits meat eating and sleeping on a couch, under certain special circumstances.[5]

Among the Sūtras of the Taittirīya School, Baudhāyana[6] mentions only one *dīkṣā* consisting of the triple offering to Agni-Viṣṇu, Vaiśvānara and Aditi with the six *mantras* of the T.S. Āpastamba and Vaikhānasa, both of whom allude to the practice of the Vājasaneyins, show strong influence of this School. Like the Vājasaneyins, they[7] prescribe the first or the preparatory one consisting of the Paśupuroḍāśa to Vaiśvānara and the second or the real one consisting of the triple offering. They also mention that the Ukhā is to be filled for one year and the *dīkṣā* is to be performed on the 3rd, 6th or 12th day.[8]

In the Śāṅk. Śr. we only find the second *dīkṣā*. In certain cases, a fourth oblation to Aditi and a fifth to Sarasvatī or guests (Atithi) are also to be offered.[9]

The Vaiśvānara cake[10] is a peculiar feature of the *dīkṣā* of the Agnicayana only and is conspicuous by its absence in other Soma sacrifices.

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1. Ibid.
2. Ś. B. VI. 2. 2. 38.
3. Ś.B. VI. 2. 1. 35-36. Eggeling in his note has evidently confused this dīkṣā with the first one and has overlooked the word पूर्व in the first. S.B.E, vol. XLI, pt. III, p. 247.
   Sāyaṇa, however, explains the word 'pūrvadīkṣā' as प्रथमभाविनी 'दीक्षा' दीक्षाकर्मोपक्रमार्थमिति मत्वा पूर्वपक्षोद्भवा, i.e. the commencement or the preliminary of dīkṣā (on Ś.B. VI. 2. 2. 39).
4. Kāt. Śr. XVI. 25, 26.
5. Ibid, XVI. 29.
6. Baud. Śr. X. 12.
7. Āp. Śr. XVI. 8. 7, 8, 9; Vaik. Śr. XXIX/XVIII. 5, 6.
8. Āp. Śr. XVI. 9. 1; Vaik. Śr. XXIX/XVIII. 6.
9. आग्नावैष्णवो वैश्वानरीय आदित्येभ्यश्च। Śāṅk. Śr. IX. 24. 2.
   पञ्चहविर्वा। अदितये चतुर्थः पंचमः सरस्वत्यै। पञ्चहविर्वातिथ्या। Ibid, IX. 24. 4-6.
10. For the offering of the Vaiśvānara cake, see also Baud. Śr. X. 12; Āp. Śr. XVI. 8. 12; Vaik. Śr. XXIX/XVIII. 6.

The kindling of the fire in the pan requires *muñjā* and the special *Samidha* which has been described as *Kārmukī* (of *Kramuka*), *vaikaṅkatī*, *audumbarī*, *śamīmayī*, *pālāśī* and *aśvatthī* etc.[1] The kindling sticks are not to be cut by an axe. Āpastamba and Vaikhānasa prescribe the *samidha* of *Tilvaka* in connection with *abhicāra*.[2] It is significant to notice that the wood of *Tilvaka* is used in building the *Yūpas* in the Śyenayāga which is an *Abhicāra* rite.

If by chance, the fire-pan breaks, there is a provision for *Prāyaścitta*[3] involving its restoration by the same-sherds.

The fire is maintained in the Ukhā. A golden round plate (*Rukma*) sewn into the dark white hair of an antelope skin is worn by the sacrificer round the neck so that it hangs upto the navel.[4] According to the T.S.B., the gold represents brilliance and the *Kṛṣṇājina* priestly glory.[5] The Ukhā with Agni is carried on a specially prepared seat (*Āsandī*), one span high, one cubit—arm's length wide and provided with feet and board which are four-cornered, by means of a netting (*Sikya*).[6] The sacrificer is required to carry about the Agni every day for a period of one year after the initiation, if he desires to derive the full benefit of the initiation ceremony[7]. During that period he is required to perform every morning the rite of Viṣṇukrama and Vātsapra[8].

The Ś.B. lays down that only for one half of the year he performs the Viṣṇu-strides, and for the other half he worships the fire with the Vātsapra.[9] After Vātsapra we find the *Muṣṭikaraṇa* ceremony in the Āp.Śr. with prayers for the protection, preservation and strength of the Ukhā.[10]

The T.S.B. and the Ś.B. give details regarding the driving about of the

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1. T.S.B V. 1.9; Ś.B. VI. 6. 3. 6, 7; Baud. Śr. X. 12; Āp. Śr. XVI. 10; Vaik. Śr. XXIX/XVIII. 12; Kāt. Śr. XVI. 135-137.
2. तैल्वकमभिचरतः। Āp. Śr. XVI. 10. 2; Vaik. Śr. XXIX/XVIII. 7.
3. T.S.B. V. 1.10; Ap. Śr. XIV. 10.4, 5.
4. Ś.B. VI. 7.1. ff; Kāt. Śr. XVI. 146.
5. T.S.B. V. 1. 10.
6. Ś.B. VI. 7. 1. 12 ff; Kāt. Śr. XVI. 147.
7. Ś.B. VI. 7. 1. 19.
8. वात्सप्रेणोपतिष्ठते। पूर्वेद्युर्विष्णुक्रमान्क्रामति। Āp. Śr. XVI. 11.6.7; Cf Kāt. Śr. XVI. 15. 6.
9. Ś.B. VI. 7. 4. 11.
10. Āp. Śr. XVI. 11. 10 ff.

Ukhya-Agni in a chariot, whose creaking is to be avoided as it is considered demoniacal.[1] Kātyāyana[2] includes the driving about of the Agni in the Vanīvāhana ceremony. The ashes from the Ukhā are thrown either into water or elsewhere.[3]

### *The Building of the Gārhapatya Hearth*

The building of the Gārhapatya has been prescribed at this stage by the Saṁhitās (Brāhmaṇas)[4] and the Śrauta Sūtras[5] of the Kṛṣṇa Yajurveda School as also the Ś.B.[6] and the Kāt.Śr.[7] belonging to the Śukla Yajurveda. The essential elements of the rites are the same in both the Schools.

According to the T.S.[8], a prayer to Yama is first addressed for asking from him a place for the sacrifice. In the Śukla Yajurveda School[9], however, we find the additional details concerning the sweeping of the ground with *palāśa* branch, which has been incorporated later on in the Āp.Śr. and Vaik.Śr. belonging to the Kṛṣṇa Yajurveda.[10] But in them we also find the option of *śamī* branch for the *palāśa* branch.

Then there is a provision for spreading sand and saline soil on the site of the Gārhapatya in the T.S.B.[11] In the Āp.Śr. and Vaik. Śr. of this School, and also in the Ś.B. and Kāt. Śr. of the other school, there is a provision for spreading 21 stones round the site. The Ś.B., however, does not specify the number.[12]

As regards the size of the Gārhapatya, we do not find any mention in the T.S.B. But in the Ś.B. and also in the Sūtras of the Kṛṣṇa School we find

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1. T.S.B. V. 2. 2; Ś.B. VI. 8. 1
2. वनीवाहनमेतद्दीक्षासु यदीच्छेत्। Kāt. Śr. XVI. 191.
3. Ibid, XVI. 192, 193.
4. T.S.B. V. 2. 3; K.S.B. XX. I; M.S.B. III. 2. 3.
5. Baud. Śr. X. 19; Āp. Śr. XVII. 14, 15. Vaik. Śr. XXIX/XVIII. 12.
6. Ś.B. VII. 1.1,2.
7. Kāt. Śr. XVII. 3.
8. T.S. IV. 2. 4; T.S.B. V. 2. 3.
9. गार्हपत्यं चेष्यन्पलाशशाखया व्युदूहति। Ś.B. VII. 1. 1. 1. Kāt. Śr. XVII. 3.
10. पलाशशाखया शमीशाखया वा... Āp. Śr. XVI. 14. 1; Vaik. Śr. XXIX/XVIII. 12.
11. सिकता नि वपति...ऊषान्निवपति T.S.B. V. 2. 3.
12. Ś.B. VII. 1. 1.6-13; Āp. Śr. XVI. 14. 1-4; Vaik. Śr. XXIX/XVIII. 12; Kāt. Śr. XVII. 6, 7.

details about its shape and size also. The Ś.B. and the Kāt. Śr. lay down that it should be circular[1]. It should measure one fathom in diameter[2]. The Āp.Śr. and Vaik.Śr. also prescribe[3] the same shape but in the former, there is the option[4] of rectangular shape also. According to these two texts, it should measure one *vyāyāma*[5].

All the texts agree that there should be 21 bricks in the Gārhapatya hearth; 4 bricks are laid down in the middle, 2 in front, 2 behind and 13 *lokampṛṇās* in the remaining space.[6] Kātyāyana, however, prescribes that the four bricks in the middle should be *bṛhatīs* and the other 4 bricks (2 in front and 2 behind) should be *ardhabṛhatīs*.[7] According to the Ś.B. and Kāt. Śr., these four bricks should be laid *tiraścīs* (running crosswise from north to south)[8]. Āpastamba provides the option of laying them *samīcī* (running in one direction) also.[9] Vaikhānasa mentions only *samīcī*.[10] All these bricks are laid down with *mantras* and are made firm by mortar.[11]

In the T.S.B., the Āp. Śr. and the Vaik. Śr., it is laid down that he, who piles the Gārhapatya for the first time, should build up in five layers, one who piles for the second time, in three layers, and one who piles for the third time, in one layer only.[12]

But the Ś. B. favours the building of the Gārhapatya only in one layer[13] and disapproves the practice of building it in three layers.[14] Kātyāyana follows the Ś.B. but at the same time he makes the building of Gārhapatya *citi* in three layers optional[15]. Thus, we find that the texts of the Śukla Yajurveda

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1. Ś.B. VII. 1. 1. 12; (मण्डलं छादयति) Kāt. Śr. XVII. 5.
2. Infra, fns. 3, 4.
3. Āp. Śr. XVI. 14. 1; Vaik. Śr. XXIX/XVIII. 12.
4. चतुरस्रं परिमण्डलं वा। Āp. Śr. XVI. 14. 1.
5. गार्हपत्यचितेरायतनं व्यायाममात्रम्। Āp. Śr. XVI. 14. 1; Vaik, Śr. XXIX/XVIII. 12.
6. Supra, p. 157 fn. 12.
7. Kāt. Śr. XVII. 8.
8. Ś.B. VII. 1. 1. 18; Kāt. Śr. XVII. 8.
9. Āp. Śr. XVI. 14. 6.
10. Vaik. Śr. XXIX/XVIII. 12.
11. T.S.B. V. 2. 3.
12. T.S.B. V. 2. 3; Āp. Śr. XVI. 15. 1-4; Vaik. Śr. XXIX/XVIII. 12.
13. Ś.B. VII. 1. 2. 15.
14. Ibid.
15. Kāt. Śr. XVII. 22.

School generally preferred the practice of building the Gārhapatya hearth in one layer only.

On the completion of the Gārhapatya, a prayer is recited, according to the T.S.B.[1], for uniting the Agni that was before and that which is in the fire-pan. This symbolises the unity of the kingly power and the priestly power which are afterwards separated.

There are fuller details in the Ś.B.[2] of the rites performed on the completion of the Gārhapatya. The Ukhyāgni is put into the Gārhapatya with the *mantras* (V. S. XII. 57-60). The Ukhā is filled with sand which represents Vaiśvānara and is removed from the netting. Milk is then poured into it so that the human head may be placed into it later, and then it is heated.

Next comes the rite of placing, in a self-made cleft or hole, three black *Nirṛti*[3] bricks dried by rice-husk fire in the quarter of Nirṛti (south) after going away from the actual place of the sacrifice. This rite symbolises the driving out of the evil. On this occasion no *Sūdadohas* are recited. The sacrificer throws[4] away the nettings, the sling of the gold plate, the seat and the two pads and on return, he worships the fire.[5]

*Preparation of the Ground for the Fire Altar*

The preparation of the ground for the fire altar has been prescribed in all the texts. The sacrificial ground is demarcated by stones.[6] And then oxen are yoked to plough the ground. The plough is made of *udumbara* wood. We find a general agreement among the texts[7] that the number of oxen should be six or twelve, but the Ś.B., Kāt. Śr. and Āp. Śr. also give the option of 24.[8]

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1. T.S.B. V. 2. 4.
2. Ś.B. VII. 1. 1. 38, 41, 44.
3. T.S.B. V. 2. 4; Ś.B. VII. 2. 1. 1 ff. Baud. Śr.X. 19; Āp. Śr. XVI. 16; Vaik. Śr. XXIX/X VIII. 14; Kāt. Śr. XVII. 23.
4. Ś.B. VII. 2. 1. 15; Āp Śr. XVI. 15; Vaik. Śr. XXIX/XVIII. 14.
5. Ś.B. VII. 2. 1. 18.
6. Ś.B. VII. 2. 2. 9.
7. T.S., IV. 2. 5; K.S., XVI. 11-13; XIX. 3,4; M.S. III. 2.5; Kap.S. XXXII. 5,6; T.S.B. V. 2. 5,6; K.S.B. XX. 2,3; Ś.B. VII. 2. 2.2 ff; Baud. Śr. X. 24 ff; Āp. Śr. XVI. 18-19; Vaik. Śr. XXIX/XVIII. 15; Kāt. Śr. XVII. 31 ff.
8. चतुर्विंशतिगवं वा। Ś.B. VII. 2. 2. 6; Kāt. Śr. XVII. 33; Āp. Śr. XVI. 18. 5.

Here it is obvious that the Āp. Śr., belonging to the Taittirīya School, has adopted the practice of the Śukla Yajurveda School. The cordage of the plough, according to the Ś.B. and Kāt. Śr., consists of *muñja* grass triply twisted.[1]

In the Āp. Śr. and Vaik. Śr. it is prescribed that a pit should be dug and filled with water for the oxen to drink.[2] According to the Ś. B. and the Kāt. Śr., only the body of the altar should be ploughed[3]. On the other hand, the Sūtras[4] of the Kṛṣṇa Yajurveda School require the ploughing of other parts of the ground also.

The Ś.B. lays down that after ploughing the ground, a bunch of *darbha* grass is placed in the middle of the fire altar, and offering of ghee is made and jarfuls of water are poured on the ploughed ground with an *udumbara* jar. The Kāt. Śr. closely follows the Ś.B. In the T.S.B., however, we find no mention of watering the ground at this stage. Baudhāyana who belongs to that school does not prescribe this. But a Sūtra[5] in the Āp. Śr. and Vaik. Śr. suggests that this practice was adopted by the Kṛṣṇa Yajurveda School as well.

Then various kinds of herbs and seeds are sown. The Ś.B.[6] associates these herbs with Soma. In the T.S.[7] the *oṣadhis* are described as *somavatī* and *somarājñī* and there is a dialogue between them and their king Soma. This text[8] further lays down that seeds of seven domestic and seven wild plants should be sown. Āpastamba[9] gives a detailed list of these herbs. The seven domestic plants are *tila*, *māṣa*, *vrīhi*, *yava*, *priyaṅgu*, *aṇu* and *godhūma*. The seven wild ones are *veṇu*, *śyāmaka*, *nīvāra*, *jartila*, *gavedhuka*, *markaṭaka* and *gārmuta* or *kulattha*. After this, the Ś.B.[10] prescribes the buying of Soma which is

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1. मौञ्जं परिसीर्य त्रिवृत्तस्योक्तो बन्धुः। Ś.B. VII. 2. 2. 3; Kāt. Śr. XVII. 32.
2. निष्कृताहावमवटमित्यवटादुदकमाहावेषूत्सिञ्चति। Āp. Śr. XVI. 18. 2, 3; Vaik. Śr. XXIX/XVIII. 15.
3. Ś.B. VII. 2. 2. 8; आत्मनि कृषति... Kāt. Śr. XVII. 35.
4. स पुच्छादेवाग्रे etc. Baud. Śr. X. 25; पुच्छाच्छिरोऽधिकृषति, Āp. Sr. XVI. 19. 4; Vaik. Śr. XXIX/XVIII. 16.
5. पञ्चदशोदपात्रान्निनयति—Āp. Śr. XVI. 19.10; Vaik. Śr. XXIX/XVIII. 16.
6. सौम्याऽओषधयः... Ś.B. VII. 2. 4. 26.
7. T.S. IV. 2.6.
8. Ibid.
9. Āp. Śr. XVI. 19.13,14.
10. Ś.B. VII. 3. 1. 2-4.

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intended to interlink the Soma sacrifice with the performance of the fire ceremonies. In the T.S.[1], as already noticed, the *oṣadhis* are described as *somavatī* and *somarājñī* but there is no specific mention of the Soma. Then sand[2] is scattered on the Gārhapatya and the Āhavanīya. The T.S.B.[3] prescribes the spreading of gravel (*śarkarā*). Āpastamba[4] lays down that sand should be scattered on the area of the Āhavanīya and this area should be enclosed by *śarkarā*. Then clod-bricks[5], known as *yajuṣmatī*, are taken from outside the Vedi.

### *The Uttaravedi*

A square mound or the Uttaravedi, measuring a *yuga* (86 *aṅgulas*, 7 ft. Indian or 5.25 ft. English) or 40 ft. (Indian) on each side, is thrown up in the middle of the body. The clod-bricks are placed in the mound of the Uttaravedi. Then sand, representing seeds, is spread on it, which symbolises womb. Afterwards, the whole body is covered with white sand, which is unnumbered and unlimited. Thus, the whole body is made level with the Uttaravedi. But this sand is not spread on the area of the wings and the tail. After levelling the sand, a horse or an ox is led about the altar[6] which is to be mounted from the middle of the body.[7] After this starts the building of the first layer.

### *The First Layer*

The first layer contains a lotus-leaf[8] in the centre of the body of the altar,

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1. Supra, p. 160.
2. अग्ने तव श्रवो वय इति सिकता निवपति. . . T. S. B. V. 2. 6.
3. शर्कराः सिकता व्यूहेत्, T.S.B. V. 2.6.
4. शर्कराभिरग्निहवनीयचितेरायतनं परिश्रयति etc. Āp. Śr. XVI. 20.9.
5. Ś.B. VII. 3.1.3, 14.
6. Ś.B. VII. 3.1. 27, 28; S. B. E. Vol. XLIII; pt. IV, p. 1. fn.; Kāt. Śr. XVII. 71. also T. S. IV. 2. 7; K.S. XVI. 14; M. S. II. 7. 14; V.S. XII. 102-113; XIII. 3-21; T.S.B; V. 2. 5; Āp. Śr. XVI. 20. 8; Vaik. Śr. XXIX/XVIII.. 16; Sat. Śr. XI. 7. 54.
7. Ś. B. VII. 2. 2. 17.
8. T. S. IV. 2. 8; K. S. XVI. 15; V. S. XIII. 2; T. S. P. V. 2. 6. 5; K. S. B. XX. 5; M. S. B. III. 2.6; Ś. B. VII. 4.1.7; Baud. Śr. X. 30; Āp. Śr. XVI. 22.2; Vaik Śr. XXIX/XVIII. 17; Sat. Śr. XI. 7.18; Kā. Śr. XVII. 73.

with a gold plate[1] upon it and a gold man[2] on the latter. There are two ladles[3], one of *kārṣmarya* placed in the south and the other of *udumbara* in the north. The *svayamātṛṇā*[4] (naturally perforated brick) lies close to the gold man, with *dūrveṣṭakā* or fresh green *dūrvā*[5] grass placed upon it. After placing a number of special bricks, the most important brick *aṣāḍhā*[6] is placed and then a *kūrma*[7] (tortoise), *ulūkhala-musala*[8] (mortar and pestle), the Ukhā[9] and the victim's heads[10] respectively. Then a number of other bricks[11] are spread on the first layer. And finally the whole body of the altar is covered with *purīṣa* and sand.[12]

On examining the list of bricks, some striking features revealing the gradual evolution and growing complexity of this ritual present themselves to us. This

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1. T. S. IV. 2.8; V. S. XIII. 3; T. S. B. V. 2.7.1; K. S. B. XX. 5; M. S. B. III. 2.6; Ś. B. VII. 4.1.10; Baud. Śr. X. 30; Āp. Śr. XVI. 22.3; Vaik. Śr. XXIX/XVIII. 17; Sat. Śr. XI. 7.20; Kāt. Śr. XVII. 74.
2. T. S. IV. 2.8; V. S. XIII. 4; T. S. B. V. 2.7.2; K. S. B. XX. 5; M. S. B. III. 2.6; Ś. B. VII. 4 1.15; Baud. Śr. X. 30; Āp. Śr. XVI. 22.3; Vaik. Śr. XXIX/XVIII. 17; Sat. Śr. XI. 7. 21; Kāt. Śr. XVII. 75.
3. T. S. IV. 2.8; V. S. XIII. 14; T. S. B. V. 2.7.3; K. S. B. XX. 5; M. S. B. III. 2.6; Ś. B. VII. 4.1.37; Baud. Śr. X. 30; Āp. Śr. XVI. 22. 4,5; Vaik. Śr. XXIX/XVIII. 17; Sat. Śr. XI. 7. 24, 25; Kāt. Śr. XVII. 83-86.
4. T. S. IV. 2.9; V. S. XIII. 16; T. S. B. V. 2.8.1; K. S. B. XX. 6; M. S. B. III. 2.6; Ś. B. VII. 4.2.1; Baud. Śr. X. 31; Āp. Śr. XVI. 23.1; Vaik. Śr. XXIX/XVIII. 17; Sat. Śr. XI. 7.28; Kāt. Śr. XVII. 87.
5. T. S. IV. 2. 9; V. S. XIII. 20; T. S. B. V. 2.8.3; K. S. B. XX. 6; M. S. B. III. 2.6; Ś. B. VII. 4.2.11; Baud. Śr. X. 32; Āp. Śr. XVI. 24.1; Vaik. Śr. XXIX/XVIII. 17; Sat. Śr. XI. 7.32; Kāt. Śr. XVII. 90.
6. T. S. IV. 2.9; K. S. XV. 16; M. S. II. 7.16; V. S. XIII. 26; T. S. B. V. 2. 8.3; K. S. B. XX. 6; M. S. B. III. 2.7; Ś. B. VIII. 4.2.32 ff; Baud. Śr. X. 32; Āp. Śr. XVI. 24.12; Vaik. Śr. XXIX/XVIII. 17; Sat. Śr. XI. 7.40; Kāt. Śr. XVII. 100.
7. T. S. IV. 2.9; V. S. XIII. 27; T. S. B. V. 2.8.5; K. S. B. XX. 7; M. S. B. III. 2.7; Ś. B. VII. 5.1.1 ff; Baud. Śr. X. 33; Āp. Śr. XVI. 25.1; Vaik. Śr. XXIX/XVIII. 17; Sat. Śr. XI. 7.41,42; Kāt. Śr. XVII. 99.
8. T. S. IV. 2.9; V. S. XIII. 33; T. S. B. V. 2. 8; K. S. B. XX. 7; M. S. B. III. 2.7; Ś. B. VII. 5.1.12; Baud. Śr. X. 33; Āp. Śr. XVI. 26. 1,2; Vaik. Śr. XXIX/XVIII. 18; Sat. Śr. XI. 7.43, 44; Kāt. Śr. XVII. 102.
9. T. S. IV. 2.9; V. S. XIII. 34; T. S. B. V. 2.9.1; K. S. B. XX. 7; M. S. B. III. 2.7; Ś. B. VII. 5.1. 35; Baud. Śr. X. 33; Āp. Śr. XVI. 26. 8; Vaik. Śr. XXIX/XVIII. 19; Sat. Śr. XI. 7.48 ff; Kāt. Śr. XVII. 103.
10. Infra, p. 167.
11. Infra, p. 170.
12. पुरीषमाहृत्य. . .चितावनुव्यूहति। Āp. Śr. XVI. 34.6. मध्ये पुरीषं निवपति पूर्ववत्। पूर्वमर्धानूकं छादयति। प्रदक्षिणमात्मानम्। Kāt. Śr. XVII. 131-133.

is clearly visible in the Kṛṣṇa Yajurveda School. The *mantras* of the T.S.[1], in this context, are associated with 7 bricks—*svayamātṛṇā, dūrveṣṭakā, aṣāḍhā, retaḥsik, apasyā, prāṇabhṛt* and *apānabhṛt*. The T.S.B.[2] mentions 7 bricks—*svayamātṛṇā, dūrveṣṭakā, aṣāḍhā* (*tryālikhitā*), *apasyā* (*saṁyata*), *prāṇabhṛt, apānabhṛt* and *chandasyā*. But here we find *chandasyā* in place of *retaḥsik*; however, there is no direct reference to *retaḥsik*. The K.S.B[3]. raises this number to 9 by adding *dviyajus* and *ṛtavyā*. The M.S.B[4]. adds two more names to this list—*viśvajyotis* and *lokampṛṇā*. The Baud. Śr[5]., by adding *hiraṇyeṣṭakā, maṇḍaleṣṭakā, virāja, sayuja* and *saṁyānī*, raises the number to 16. The Vaik. Śr[6]. omits *ṛtavyā* and *chandasyā* from the list of Āp. Śr. but adds *apānabhṛt*.

The order of bricks often differs in the Kṛṣṇa School. For instance, the *dviyajus* is mentioned just before *aṣāḍhā* in the M.S.B. but before *retaḥsik* in K.S.B. Similarly, *ṛtavyā* is mentioned after *aṣāḍhā* in Baudhāyana but before it in Āpastamba.[7]

The texts of the Śukla Yajurveda School show uniformity in the number, names and order of bricks. The V.S[8]. reveals 10 names of bricks—*svayamātṛṇā, dūrveṣṭakā, dviyajus, retaḥsik, viśvajyotis, ṛtavyā, aṣāḍhā, apasyā, chandasyā* and *prāṇabhṛt*. The Ś.B. and the Kāt. Śr. adopt this very order and add *lokampṛṇā*[9] which occurs for the first time in the M.S. of the Kṛṣṇa School from which it appears to have been borrowed. Kātyāyana, however, includes the *chandasyās* in the *apasyās* but this is a minor difference.[10]

*Common Bricks of the Two Schools, their Numbers and Placing*

The common bricks[11] of the two schools are *svayamātṛṇā, dūrveṣṭakā, aṣāḍhā,*

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1. T.S. IV. 2.9; IV. 3.1—3.
2. T.S.B. V. 2.8.1, 3; V. 2.10.1, 2, 6.
3. K.S.B. XX. 6, 9.
4. M.S.B. III. 2.6—8.
5. Baud. Śr. X. 30—36.
6. Vaik. Śr. XXIX/XVIII. 17—20.
7. Supra, p. 162.
8. V.S. XIII. 2, 3, 4, 14, 16, 20, 24, 26, 27, 33, 34, 53.
9. Ś.B. VII. 4.1 7, 10, 11, 15, 37; VII. 5. 1. 1. 12, 35; VII. 5. 2.40, 41; VIII. 1.1.1, 2; VIII. 1.4. 11. Kāt. Śr. XVII. 73, 74, 75, 87, 90, 100, 102, 103, 127.
10. Kāt. Śr. XVII. 124.
11. Supra, p. 162 fns. 1-9.

*prāṇabhṛt*, *apasyā* and *retaḥsik*. The *svayamātṛṇā* was the central brick of the body. The *aṣāḍhā* was placed after some bricks in front (to the east) of the central brick. The position of *retaḥsik* is not fixed. According to the Śukla School, it was placed after the *dviyajus* and before the *viśvajyotis*, *ṛtavyā* and *aṣāḍhā*. In the K.S.B. and also in the Sūtras of the Kṛṣṇa Yajurveda, there is no uniformity regarding its placing. However, it was placed at some stage before the placing of the *aṣāḍhā*. But the M.S.B. of the Kṛṣṇa School offers an exception. Here the *retaḥsik* has been mentioned after the *aṣāḍhā*. The evidence of the T.S.B., Baud. Śr., Ś.B. and Kāt. Śr. reveals that in both the schools out of 50 *prāṇabhṛt* bricks four sets of ten bricks each are placed on the four diagonals of the body and the fifth set is laid down round the *svayamātṛṇā*. The 15 *apasyās* in groups of five each are laid down in the east, south and west (along the fringes of the body). The other 5 *apasyās* which are taken to be *chandasyās* also (Ś.B., Kāt. Śr., Vaik. Śr.), are laid down in the north.[1]

The cumulative evidence of the texts shows that after placing the special bricks, mentioned above, the remaining space was to be filled with the *lokampṛṇās* which were required to be placed on the wings and the tail also. This brick has, however, not been mentioned in the T.S.B. and the K.S. But a *mantra* of the latter reveals the name *lokampṛṇā*[2].

The brick, called *apānabhṛt*[3], occurs only in the majority of the texts of the Kṛṣṇa School, the T.S.B., M.S.B., Baud. Śr. and Vaik. Śr. It finds no mention in the texts of the Śukla School. Thus, it is clear that it was confined to the Kṛṣṇa School.

We have already noticed that *lokampṛṇā* appears only in the M.S.B. of the Kṛṣṇa Yajurveda School. But, besides the Sūtra of that School, the Ś.B. and Kāt. Śr. of the Śukla School also accept it.

The case of *dviyajus*[4] reveals a new feature. It is mentioned in the M.S.B. and K.S.B. of the Kṛṣṇa School. This name occurs in the Baud. Śr. but Āpastamba and Vaikhānasa omit it. On the other hand, in the Śukla School[5], this brick

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1. Supra, p. 162 fns. 1-9.
2. K.S. XVI. 19.
3. Supra, p. 162.
4. Ibid.
5. Ibid.

continues right from the V.S. and Ś.B. down to the Kāt. Śr. Similarly, *ṛtavyā*[1] occurs in the K.S.B. and is accepted by Baudhāyana and Āpastamba, but is left by Vaikhānasa. However, it continues in the Śukla School throughout—in the V.S., Ś.B. and Kāt. Śr.

*Some important Bricks and their Significance*

The significance of the *aṣāḍhā* has already been discussed. It has been identified with earth, speech and vital airs in the Ś.B.[2] After putting this brick, the sacrificer conquers his enemies. Its placing, thus, involves an element of magical operation.[3] The T.S.B.[4] refers to it as *devalakṣmam* and *tryālikhitā* and associates it with the support received by the gods in their contest with the Asuras.

The *svayamātṛṇā*[5] or the naturally perforated brick is placed in the centre of the first layer of the body. In the *mantra* of the T.S[6]., it has been invoked as *vyacasvatī* (spacious), *prathasvatī* (*pṛthulām*), *bhūmivatī*, *viśvadhāyā* (*viśvasya bhuvanasya dhartrī*). It is desired that the earth may be supported and the world may not be harmed. The brick is naturally perforated in order to permit the breath of cattle and of the sacrificer to pass and also to reveal the heaven. Commenting on the T.S.B., Sāyaṇa[7] explains that this brick should be a small *śarkarā* stone with perforations (man-made or natural). The brick is compared with earth. The horse is made to sniff it and thereby it bestows breath upon it.

According to the Ś.B.[8], the *śvayamātṛṇā* symbolising food and breath is placed on the gold man and thus these two are placed close to the man. This

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1. Ibid.
2. Ś.B. VII. 4.2.31-34.
3. तथैवैतद्यजमानऽएतामुपधाय द्विषन्तं भ्रातृव्यमस्मात्सर्वस्मात्सहते। Ibid, VII. 4.2.33.
4. T. S. B. V. 2.8.
5. T.S. IV. 2.9; K.S. XVI. 16; M.S. II. 7. 16; V.S. XIII. 16; Ś.B. VII. 4.2.4; Baud. Śr. X. 31; Āp. Śr. XVI. 23; Vaik Śr. XXIX/XVIII. 17; Kāt. Śr. XVII. 98.
6. T.S. IV. 2.9.
7. शर्कराख्यानां क्षुद्रपाषाणानां मध्ये पुरुषप्रयत्नमन्तरेण या स्वत एव छिद्रयुक्ता सेयं शर्करा 'स्वयमातृणा'। Sāyaṇa on T.S.B. V. 2.7; p. 269.
8. स्वयमातृण्णामुपदधाति। इयं वै स्वयमातृण्णेमामेवैतदुपदधाति तामनन्तर्हितां पुरुषादुपदधात्यन्नं वै स्वयमातृण्णेयं वै स्वयमातृण्णेयमु वाऽअन्नमस्यां हि सर्व्वमन्नं पच्यतेऽनन्तर्हितमेवास्मादेतदन्नं दधात्युत्तरामुत्तरमेवास्मादेतदन्नं दधाति। Ś.B. VII. 4.2.1. यद्वेव स्वयमातृण्णामुपदधाति। प्राणो वै स्वयमातृण्णा...अनन्तर्हितमेवास्मादेतत्प्राणं दधाति। Ibid, VII. 4. 2. 2.

brick is the foundation of the altar-site or the body of Prajāpati in the task of its restoration.[1] The Sūtras of both the Śukla and Kṛṣṇa Schools have preserved this tradition.[2] It is encircled by 10 *prāṇabhṛt* bricks.[3]

Then according to the texts[4] of both the Schools, the *dūrvā* brick, i.e. fresh green *dūrvā* grass, is placed on the *svayamātṛṇā*. Āpastamba[5], however, lays down that the *dūrvā* should be taken along with the clod.

The two *retaḥsiks* are conceived as the seed-shedding bricks, representing the two worlds.[6] According to the Ś.B., these two are laid down in front of the *dviyajus* which is in front of the central brick (*svayamātṛṇā*). Kātyāyana also prescribes the laying down of two such bricks in this way.[7] But in the Kṛṣṇa Yajurveda School[8], the T.S. and the Baud. Śr. refer to only one *retaḥsik* brick. Āpastamba[9] provides for one or even two.

The Ś.B.[10] identifies the five groups of 50 *prāṇabhṛts* with the bestowing of breath on the five victims. The five groups are associated with Vaśiṣṭha, Bhāradvāja, Viśvāmitra, Jamadagni and Viśvakarmā.[11]

The fifteen *apasyās*, associated with water, are compared to thunderbolt. They are laid down because water has flown out of the victims' heads[12]. In the T.S.B.[13] they are compared to cattle and seed, and are placed so that fire may not burn excessively.

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1. यद्वेव स्वयमातृण्णामुपदधाति प्रजापतिं व्विस्रस्तं देवताऽआदाय व्व्युदक्रामंस्तासु व्युत्क्रामन्तीषु प्रतिष्ठामभिपद्योपाविशत्। Ibid, VII. 4.2.3.
2. Baud. Śr. X. 31; Āp. Śr. XVI. 23.1; Vaik. Sr. XXIX/XVIII. 17; Kāt. Śr. XVI. 98.
3. Ś.B. VIII. 1.1.4 ff; S.B.E, vol. XLIV, pt. IV, p. 2 fn.
4. Supra, p. 162.
5. सलोष्टं हरितं दुर्वास्तम्बमप्रच्छिन्नाग्रं . . . । Āp. Śr. XVI. 24. 1.
6. अथ रेतःसिचाऽउपदधाति। इमौ वै लोकौ रेतःसिचौ . . . । Ś.B. VII. 4. 2. 22.
7. Ś.B. VII. 4. 2. 22-24; Kāt Śr. XVII. 94.
8. T.S. IV. 2. 9; Baud. Śr. X. 31.
9. Āp. Śr. XVI. 24. 3-5.
10. अनन्तर्हिताः पशुभ्यऽउपदधाति। Ś.B. VIII. 1. 1. 2.
11. T.S.B. V. 2. 10; Ś. B. VIII. 1.1. 6 ff.
12. आपऽएता यदपस्याऽअथ वाऽएतेभ्यः पशुभ्यऽआपऽउत्क्रान्ता भवन्ति, Ś.B. VII. 5. 2. 40.
13. T.S.B. V. 2. 10.

The *dviyajus* is conceived as the human form of the sacrificer and the gold man is his divine form. It is placed close to the gold man to the east of it on the spine. It is also placed near the *dūrveṣṭakā* in order to join breath with breath.[1]

The *viśvajyotis* means literally the 'all light brick'. It has been identified with Agni and progeny. The Ś.B. prescribes that it should be laid close to the *retaḥsik* bricks.[2]

*The Placing of the Ukhā*

The Ukhā is described in the T.S.B.[3] as the light of lights. It is filled with sand in the form of Agni Vaiśvānara. The Ś.B.[4] states that the fire-pan is placed on the mortar. Having been placed in this way, it is conceived as the womb and has been identified with Prajāpati. The Ukhā is filled with sand and milk.[5] Āpastamba[6] lays down that it is filled with ghee, curd, honey and sand or with any one of these. According to Mahīdhara[7], it is only temporarily placed on the mortar, and, later on, it is removed and placed on the powdered clay to the east of the mortar.[8]

*The Placing of the Victims' Heads*

The victims' heads are placed on the Ukhā.[9] It is significant that in the texts of the Kṛṣṇa Yajurveda School there is an attempt to draw a distinction between the human head and the heads of other victims. They prescribe the thrusting of seven gold chips into the seven organs of breath—two eyes, two ears, two nostrils and the mouth of the human head. But this procedure is not to be

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1. Ś. B. VII. 4. 2. 16, 17, 20.
2. अथ व्विश्वज्योतिषमुपदधाति।...तामनन्तर्हितां रेतःसिग्भ्यामुपदधातीमौ वै लोकौ रेतःसिचावनन्तर्हितं तदाभ्यां लोकाभ्यामग्निं दधाति...प्रजा वै व्विश्वज्योतिः। Ś. B. VII. 4. 2. 25, 26.
3. उखारूपं यत् वस्तु तदिदमेषां (पृथिव्यादीनां) लोकानां ज्योतिः संपादनाय उखामुपदध्यात्। Sāyaṇa on T.S. IV. 2. 9.
4. Ś.B. VII. 5. 1. 26, 27.
5. Ś.B. VII. 5. 1. 32; S.B.E., vol. VXLI, pt. IV, fn. 1 on p. 2 (Eggeling).
6. घृतेनोखां पूरयति दध्ना मधुना सिकताभिर्वा सर्वैर्वा। Āp. Śr. XVI. 26. 6.
7. S.B.E., vol. VXLI, pt. III. p. 397 fn.
8. The mortar lies at the distance of one cubit north of the central brick (Ś.B. VII. 5. 1. 12, 13).
9. Ś.B. VII. 5. 2. 1 ff.

observed in respect of other heads.[1] All the texts are also unanimous in laying down rules for making the human head *medhya* or fit for sacrifice by anointing it with curd and honey[2] symbolically representing the produces of the household and jungle. According to Āpastamba and Vaikhānasa, the human head is placed with the *mantra* '*Sahasraśīrsā puruṣaḥ*' etc.[3] The head of the horse is in the east looking west and that of the bull, in the west looking east.[4] The Ś.B.[5] also prescribes the placing of the heads of five victims on the Ukhā. Gold chips are thrust into the seven organs of breath of each head. In this school, we thus, find that the procedure of thrusting gold chips is observed with all the heads. The Ś.B.[6] discusses whether only 7 or 35 gold chips are to be thrust, in case the head of only one victim is used. The text favours the former practice of thrusting 7 gold chips only and disapproves the latter.[7] Kātyāyana, however, provides both the alternatives.[8]

The whole treatment of the Ś.B. in connection with the placing of the heads is on the assumption that they should be five. So far as the *mantras* are concerned, the Ś.B.[9] does not make any distinction whether the heads are five or one. On the other hand, Kātyāyana[10] lays down that each of the five heads should be placed with the *mantra* '*ādityaṁ garbham*' etc. In case there is only one victim's head, all the five *mantras* should be recited on it.[11] The heads are placed on the Ukhā which is full of milk and an offering is made on the human head whereby man alone is made fit for sacrifice.[12]

The Ukhā is the womb and by being placed thereon the animals do not

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1. T.S.B. V. 2. 9; K.S.B. XX. 8; M.S. B. III. 2. 7.
2. E. g. T.S.B. V. 2. 9; Baud. Śr. X. 33.
3. Āp. Śr. XVI. 28. 3; Vaik. Śr. XXIX/XVIII. 20.
4. Ś.B. VII. 5. 2. 18, 19.
5. Ś.B. VII. 5. 2. 1.
6. Ibid, VII. 5. 2. 8, 9.
7. Ibid, VII. 5. 2. 10.
8. Kāt. Śr. XVII. 106-111.
9. Ś.B. VII. 5. 2. 1 ff.
10. आदित्यं गर्भमिति प्रतिमंत्रम्। Kāt. Śr. XVII. 116.
11. सर्वमंत्रानप्येकस्मिन्नेके। Ibid, XVII. 121.
12. अथ पुरुषशीर्षमभिजुहोति। आहुतिर्व्वै यज्ञः पुरुषं तत्पशूनां यज्ञियं करोति तस्मात्पुरुषऽएव पशूनां यजते। Ś.B. VII. 5. 2. 23.

diminish.[1] Then by being placed there they are united[2] with the trunks (*kabandhas*). The human head is placed in the middle and the heads of the other victims are placed on both the sides—the heads of horse and ram on the left (north) and those of the bull and he-goat on the right (south). By placing the human head in the middle, the man, the eater of cattle, is placed in the midst of cattle.[3]

*Removal of Distress*

The texts of both the schools, from the *mantras* of the Saṁhitās up to the Sūtras, prescribe the Utsarga ceremony, by standing near the heads, intended to divert the wrath of Agni towards other animals and protect the heads and the species of the victims whose heads they are. The wrath is directed from man, horse, bull, ram and he-goat to *mayu*[4] *or kimpuruṣa*, *gavayamāraṇya*, *gauramāraṇya*, *uṣṭramāraṇya* and *śarabhamāraṇya* respectively.[5]

*The Placing of the Kūrma*[6]

The live tortoise, according to the Ś.B.,[7] is placed on the south of the *aṣāḍhā* at the distance of 1 cubit (2 ft.). The T.S.B.,[8] however, lays down that it should be placed to the east of the *śvayamātṛṇā*, facing east. In the Śukla School, as the evidence of the Ś.B.[9] shows, the Kūrma is covered with *avakā* plants symbolising water. This tradition has been borrowed by Āpastamba[10] in the Kṛṣṇa School as well. The tortoise is anointed with curd, honey and ghee.[11]

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1. तस्मादद्यमानाः पच्यमानाः पशवो न क्षीयन्ते योनौ ह्येनान्प्रतिष्ठापयति। Ibid, VII. 5. 2. 2.
2. या वै ताः श्रियऽएतानि तानि पशुशीर्षण्यथ यानि तानि कुसिन्धान्येतास्ताः पञ्चचितयः. . . .तद्यदुखायां पशुशीर्षण्युपदधात्येतैरेव तच्छीर्षभिरेतानि कुसिन्धानि संदधाति। Ś.B. VII. 5. 2. 3. Sāyaṇa explains कुसिन्धानि as कबन्धानि or trunks.
3. मध्ये पुरुषमभितऽइतरान्पशून्पुरुषं तत्पशूनां मध्यतोऽत्तारं दधाति तस्मात्पुरुष एव पशूनां मध्यतोऽत्ता। Ś.B. VII. 5. 2. 14.
4. कृष्णमृग according to Sāyaṇa (on T.S. IV. 2.10).
5. T.S. IV. 2.10; K.S. XVI. 17.17; M.S. II. 7.17; Ś.B. VII. 5. 2. 32 (Kimpuruṣa appears in the Ś.B); Baud. Śr.X. 33; Āp. Śr. XVI. 27. 14 ff.
6. In the Vaik. Śr. (XXIX/XVIII. 17) we find the option of placing of a frog also.
7. Ś.B. VII. 5. 1. 6.
8. T.S.B. V. 2.8.
9. Ś.B. VII. 5. 1. 11.
10. Āp. Śr. XVI. 25. 1, 2.
11. E.g. Ś.B. VII. 5. 1. 3.

A live tortoise is placed, lest by the presence of the lifeless heads of man and animals the sacrificial altar might be turned into Śmaśānaciti.[1] It is also conceived as the knower of the path to heaven[2] and as the intelligence of animals. It is identified[3] with the three worlds, Prajāpati and the yonder Sun.

*The Placing of the Head of a Snake*

Baudhāyana and Āpastamba specifically prescribe that the head of a snake[4] should be placed in the first layer. The *mantra* containing the invocation to snake occurs in the T.S. (IV. 2. 8). It has been ignored in the T.S.B., which, according to Sāyaṇa[5], is due to the fact that the practice was too obvious to require a separate mention. But Āpastamba and Vaikhānasa refer to this *mantra*.[6] In the other school also, as the evidence of the Ś.B.[7] shows, the snake formula has a considerable significance, but there is no specific mention of placing the head of a snake.

*The Placing of Bricks according to the Ś.B.*

On the spine in front (east) of a central stone (*svayamātṛṇā*), 1 *dviyajus*, 2 *retaḥsiks* (one on either side of the spine and joined to each other), 1 *viśvajyotis*, 2 *ṛtavyās* (one on either side of the spine and joined to each other) and the *aṣāḍhā* are spread in a continuous row.[8] Then 15 *apasyās* are placed on the fringes of the body, 5 bricks being in each quarter.[9] In the fourth quarter, 5 *apasyās* are placed[10] which are called *chandasyās* also. After that, 50 *prāṇabhṛt* bricks are

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1. श्मशानं वा एतत्क्रियते यन्मृतानां पशूनां शीर्षण्युपधीयन्ते यज्जीवन्तं कूर्ममुपदधाति तेनाश्मशानचिद्वास्तव्या वा एष यत् कूर्मः। T.S.B. V. 2. 8. Cf. K.S.B. XX. 7; M.S.B. III. 2. 7.
2. Sāyaṇa on T.S.B. V. 2. 8, p. 275.
3. Ś.B. VII. 5. 1. 2, 5, 6.
4. Baud. Śr. X. 27; Āp. Śr. XVI. 27. 22.
5. Sāyaṇa on T.S. IV. 2. 8, p. 261.
6. Āp. Śr. XVI. 27. 22; the Vaik. Śr. permit the head of *god..ā* in the absence of snake-head (तदभावे गोधाया) XXIX/XVIII. 19.
7. Ś.B. VII. 4. 1. 25 ff.
8. Ś. B. VII. 4. 2. 1 ff.
9. Ś.B. VII. 5. 2. 41.
10. Ibid, VII. 5. 2. 42.

laid down of which four sets of 10 bricks each are placed on the four diagonals and the fifth set is laid down round the *svayamātṛṇā* at the distance or on the range of the two *retaḥsik* bricks.[1] Then, the *lokampṛṇā* bricks,[2] 1929 in all[3], which fill the remaining space of the body, the wings and the tail, are laid down.

*Reference to Bones in the First Layer*

In the Ś.B.[4] *retaḥsik* bricks are identified with ribs which are placed in the middle. Agni has been equated with a mighty buffalo.[5] Further, it has also been identified with an animal—*svayamātṛṇā*, the naturally perforated brick, is his lower vital air, the *dviyajus* his hip, the two *retaḥasik* bricks the ribs, the *viśvajyotis* the breast-bone, the two seasonal bricks (*ṛtavyās*) the back, the *aṣāḍhā* the neck and the tortoise the head.[6] The *chandasyā* bricks are compared with cattle.[7] Their placing represents the restoration of flesh and bone taken out earlier. The bricks are also spoken of as fingers and toes, and the sacrificer is required to put them on all sides.[8] We also find a reference to the fact that the heads are placed on the altar with a view to restore the trunks[9] evidently deposited in the layer. The *prāṇabhṛt* bricks are not to be separated from animals and, therefore, one is placed on every side.[10]

According to Baudhāyana,[11] after completing the first layer, the *pravargya* ceremony is performed in the afternoon of the first day and on the mornings of the second and third days. On the second day, a black horse is touched and *purīṣa* is laid on the altar with some *mantras*. Other texts also prescribe that *purīṣa* or sand should be laid down on the altar at this stage.[12]

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1. Ibid, VIII. 1. 1. 1; see also S.B.E., vol. XLIII, pt. IV, pp. 1-2 fn.
2. Ibid, VIII. 1. 4. 10.
3. S.B.E., vol. XLIII, pt. IV, p. 22 fn. 1, p. 135 ff.
4. Ś. B. VII. 5.1.13, 24.
5. Ibid, VII. 3. 1. 34.
6. Ibid, VII. 5. 1. 35.
7. Ibid, VII. 5. 2. 42.
8. Ibid, VIII. 1. 1. 2.
9. Ibid, VII. 5. 2. 3; also supra, p. 169 fn. 2.
10. Ś. B. VIII. 1. 1. 2.
11. Baud. Śr. X. 37.
12. मध्ये पुरीषं निवपति पूर्ववत्। Kāt. Śr. XVII. 131.

## *The Second Layer*

### *Bricks*

The names of bricks occurring in the texts--Saṁhitās, Brāhmaṇas and Sūtras of both the schools are *āśvinī*,[1] *ṛtavyā*,[2] *prāṇabhṛt*,[3] *apasyā*,[4] *vṛṣṭisanī*,[5] *vayasyā*,[6] *sayuja*,[7] *saṁyānī*,[8] *vaiśvadevī*,[9] and *lokampṛṇā*.[10]

The only brick which is common to the Saṁhitās, Brāhmaṇas and Sūtras of both the schools is *āśvinī*, five in number. *Vayasyā* occurs everywhere except in the M.S.B. *Apasyā* also figures in the texts of both the schools except the T.S.B. and the Baud. Śr. Similar is the case with *ṛtavyā* which is omitted only by the K.S.B.

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1. Five in number according to all the texts :
T. S. IV. 3. 4; K. S. XVII.1; M. S. II. 8.1; V. S. XIV. 1; T. S. B. V. 3. 1.; K. S. B. XX. 10; M. S. B. III. 2.9; Ś. B. VIII. 2.1. 4-9; Baud. Śr. X. 38; Āp. Śr. XVII. 1.2; Vaik. Śr. XXX/XIX. 3; Sat. Śr. XII. 1.2; Kāt. Śr. XVII. 165 ff. Pāṇini also mentions this brick (Aṣṭādhyāyī, IV. 4.126).
2. Five in the T. S. B. and M. S. B.; two in the Ś. B., Baud. Śr., Āp. Śr., Vaik. Śr. and Kāt. Śr.: T. S. IV. 3. 4; K. S. XVII. I; M. S. II. 8. 1; V. S. XIV. 6; T. S. B. V. 3. 1; K. S. B. XX. 10; M. S. B. III. 2. 9; Ś. B. VIII. 2. 1. 16 ff.; Baud Śr. X. 38; Āp. Śr. XVII. 1.7; Vaik. Śr. XXX/XIX. 3; Sat. Śr. XII. 1. 4; Kāt. Śr. XVII. 194.
3. Five in the T. S. B., Ś. B., Baud. Śr., Āp. Śr., Vaik. Śr. and Kāt. Śr.: T. S. IV. 3.4; K. S. XVII. 1; M. S. II. 8.2; T. S. B. V. 3.1; Ś. B. VIII. 2.3.3; Baud. Śr. X. 38; Āp. Śr. XVII. 1.4; Vaik. Śr. XXX/XIX. 3; Sat. Śr. XII. 1.4; Kāt. Śr. XVII. 185.
4. Four in the M. S. B. and five in the Ś. B., Āp. Śr., Vaik. Śr. and Kāṭ. Śr.: T. S. IV. 3.4; K. S. XVII. I; M. S. II. 8.2; K. S. B. XX. 10; M. S. B. III. 2.9; Ś. B. VIII. 2.3.6; Āp. Śr. XVII. 1.5; Vaik. Śr. XXX/XIX. 3; Sat. Śr. XII. 1.5; Kāt. Śr. XVII. 186.
5. Five in the Baud. Śr.: T. S. IV. 3.4; K. S. XVII. 1; M. S. II. 8.2; T. S. B. V. 3.1; Baud. Śr. X. 38.
6. Nineteen in the Ś. B.: T. S. IV. 3.5; K. S. XVII. 2; M. S. II. 8. 2; V. S. XIV. 9; T. S. B. V. 3. 1; K. S. B. XX. 10; Ś. B. VIII. 2.3.6; Baud. Śr. X. 38; Āp. Śr. XVII. 1.9; Vaik. Śr. XXX/XIX. 3; Kāt. Śr. XVII. 187. The name of this brick occurs in the Aṣṭādhyāyī also (IV. 4.127).
7. Two in the Baud. Śr. X. 38.
8. One in the Baud. Śr. X. 38 and two in the Vaik. Śr. XXX/XIX. 3.
9. Five in the Ś. B. and Kāt. Śr.: V. S. XV. 7; Ś. B. VIII. 2.1. 1ff; Kāt. Śr. XVII. 183.
10. Ś. B. VIII. 2. 4. 20; Baud. Śr. X. 38; Kāt. Śr. XVII. 190. According to the Ś. B., each layer requires 1929 Lokampṛnās—1028 for the body, 309 for each wing and 283 for the tail (S. B. E., vol. XLIII, pt. IV, p. 22 fn.).

*Vṛṣṭisanī* is a brick which is confined to the Kṛṣṇa School. It occurs in the Saṁhitās and Brāhmaṇas of this school and also in the Baud. Śr. It is, however, dropped by Āpastamba and Vaikhānasa.

*Vaiśvadevī* is confined only to the texts of the Śukla School – V.S., Ś.B. and Kāt. Śr.

*Lokampṛṇās* are mentioned only in the Ś.B., Kāt. Śr. and Baud. Śr.

*Sayuja* and *saṁyānī* are very rare bricks, being prescribed only by Baudhāyana; the latter has been prescribed by Vaikhānasa also.

*Placing of the Special Bricks according to the Ś.B.*[1]

The special bricks of the second layer are so arranged on the range of the *retaḥsik* as to form the outer rim of a square measuring 5 ft. on each side. The middle is blank. Each side, proceeding in the sun-wise way, from left to right, has the following bricks – *āśvinī*, *vaiśvadevī*, *prāṇabhṛt* and *apasyā*. The *apasyās* occupy the corner places and each of them is common to two sides. On the southern side, each class of the *āśvinī*, *vaiśvadevī*, *prāṇabhṛt* and *apasyā* consists of 2 half-bricks joined together with their long sides from east to west. The two *ṛtavyās* are placed to the east of the square, leaving a distance of one *pāda*, north and south of the spine, exactly over the two *ṛtavyās* of the first layer. The nineteen *vayasyās* are placed at the four ends of the two spines, five in each of the southern, western and northern quarters and four in the eastern quarter. The remaining space of the body is filled up with *lokampṛṇās*[2] which are placed on the wings and tail also.

*Significance of the Special Bricks of the Second Layer*

*Āśvinīs*—These bricks are associated with the Aśvin deities. They are considered as representing that part of the body of Prajāpati which is above the feet and below the navel. This part of his body was taken over by the Aśvins.[3]

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1. S. B. E., vol. XLIII, pt. IV., pp. 23-24 fn.
2. Supra, p. 172. fn. 10.
3. T. S. B. V. 3.1; Ś. B. VIII. 2. 1. 3, 11,13.

The *ṛtavyā*[1] bricks represent the seasons, Śukra and Śuci, the two summer seasons. The *vaiśvadevīs* are placed along side the *āśvinīs* which symbolise the creation of creatures by Prajāpati in union with Aśvins.[2] *Vaiśvadevī* represents the creatures and the *prāṇabhṛts*, the vital airs. In this way the sacrificer bestows vital airs on the creatures.[3] The *apasyā* bricks are placed close to the *prāṇabhṛts* so as to put water into vital airs.[4] They also signify food.[5] The *chandasyās*, otherwise called *vayasyās*, are placed close to the *apasyās* which symbolise the establishment of cattle on water.[6] According to the T.S.B.[7] also, they represent cattle. The *vṛṣṭisanī* bricks are conceived as an aid to rain-fall and are not placed in one place, lest rain might fall at one place only.[8] In the case of malevolent rites (*abhicāra*), *vṛṣṭisanīs* are placed after *apasyās* with a view to make the foe devoid of cattle.[9]

*The Evidence of Bones and Animals*

The second layer is known as the layer of animals.[10]

The Ś.B.[11] identifies the *āśvinī* bricks with that part of Prajāpati which was above the feet and below the navel and they signify the restoration of that part of his in the second layer of the altar. The range of the *retaḥsik* and the *retaḥsik* bricks are associated with ribs.[12] The *chandasyās* are identified with cattle.[13] According to the Ś.B., while laying down the four *chandasyās* in front, the sacrificer recites the *mantra* (V.S. XIV. 9), 'The head is vigour' etc. We find vigour

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1. T. S. B. V. 3.2; Ś. B. VIII. 2. 1. 16.
2. Ś. B. VIII. 2. 2. 7, 8.
3. तत्प्रजाभ्यः प्राणान्दधाति। Ś.B. VIII. 2. 3. 3. According to the T. S. B. V. 3. 3, they represent the bestowing of breath on the seasons.
4. Ś. B. VIII. 2. 3. 6.
5. दधात्यथोऽन्नं। Ś. B. VIII. 2. 3. 6.
6. अप्सु तत्पशून्प्रतिष्ठापयति। Ś. B. VIII. 2. 3. 8.
7. वयस्या वै पशवो। T. S. B. V. 3. 1.
8. वायुरा वरीवर्ति वृष्टिसनीरुपदधाति वृष्टिमेवाव रुन्धे। Ibid, V. 3.1.
9. यं कामयेतापशुः स्यादिति वयस्यास्तस्योपधायापस्या उपदध्यादसंज्ञानमेवास्मै पशुभिः करोति। Ibid, V. 3.1.
10. Ś.B. VI. 2.3.10.
11. यद्वैवैताऽआश्विनीरुपदधाति। प्रजापतिं विस्रस्तं देवताऽआदाय व्युदक्रामंस्तस्य यदूर्ध्वं प्रतिष्ठायाऽवाचीनं मध्यात्तदस्याश्विनावादायोत्क्रम्यातिष्ठताम्। Ś.B. VIII. 2. 1. 11.
12. पृष्टयो वै रेतःसिचौ, ibid, VIII. 2. 1. 15; also VIII. 2. 2. 6.
13. छन्दस्याऽउपदधाति। पशवो वै छन्दांसि पशूनेवास्मिन्नेतद्दधाति। Ibid, VIII. 2. 3. 8.

identified[1] with he-goat, ram, man, tiger, lion, ox, bull, steer, bullock, milch-cow, calf of eighteen months, two-year-old bull, a bull of two and half years, three-year-old bull and four-year-old bull.

Further, Agni is conceived as an animal.[2] Those parts of the animal bodies which are placed in front are the head of Agni, those on the right and left sides are his body, and those behind, his tail. He first lays down those in front, for, of an animal that is born, the head is born first. Thus they are laid on the south and north and behind (west).[3] The animals that are biggest, he puts in the middle, thereby making the animal biggest towards the middle. The strongest animals are placed on the right side.[4] At the back he places the smallest animals. The fore-part is also small.[5]

In the T.S.B.[6] also we get reference to wild animals—tiger, lion, ram, goat, calf of eighteen months and two-year-old bull and man—in connection with the second layer.

After the completion of the second layer, the sacrificer performs[7] the *pravargya-upasad* ceremony on the morning of the fourth day. He also deposits *purīṣa* on the altar. On the morning of the fifth day, the *pravargya-upasad* ceremony is performed again with certain rites including the touching of a white horse. Then the laying of the bricks starts.

## *The Third Layer*

### *Bricks*

The special bricks of this layer occurring in the texts of both the schools

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1. Ibid, VIII. 2.4. 1-16.
2. सऽएषपशुर्यदग्निः। सोऽत्रैव सर्व्वः कृत्स्नः संस्कृतस्तस्य याः पुरस्तादुपदधाति शिरोऽस्य ताऽअथ या दक्षिणतश्चोत्तरतश्च सऽआत्माऽथ याःपश्चात्तत्पुच्छम्। Ś.B. VIII. 2. 4. 17.
3. स वै पुरस्तादेवाग्रऽउपदधाति। शिरो हि प्रथमं जायमानस्य जायतेऽथ दक्षिणतोऽउपधायोत्तरतऽउपदधाति सार्धमयमात्मा जायताऽइत्यथ पश्चात्पुच्छं ह्यन्ततो जायमानस्य जायते। Ibid, VIII. 2. 4. 18.
4. ये स्थविष्ठाः पशवस्तान्मध्यऽउपदधाति मध्यं तत्प्रति पशुं वरिष्ठं करोति...ये वीर्यवत्तमाः पशवस्तान्दक्षिणतऽउपदधाति। Ibid, VIII. 2. 4. 19.
5. पूर्व्वार्धश्च जघनार्धश्च पशोरणिष्ठौ... Ibid, VIII. 2. 4. 20.
6. T. S. B. V. 3. 1.
7. Baud. Śr. X. 39.

are *svayamātṛṇā, diśyās*[1] (5 according to the T.S.B., M.S.B., Vaik. Śr., Ś.B. and Kāt. Śr.), *prāṇabhṛts*[2] (10 according to the T.S.B., M.S.B., Vaik. Śr., Ś.B. and Kāt. Śr.), *jyotiṣmatīs*[3] (10 in the T.S.B.), *bṛhatīs*[4] (36 according to the T.S.B. and Āp. Śr. or *chandasyās* according to the texts of the Śukla Yajurveda), *vālakhilyās*[5] (14 according to the T.S.B., Āp. Śr., Vaik. Śr., Ś.B. and Kāt. Śr.), *viśvajyotis*[6] (1 according to the Baud. Śr., Āp. Śr., Vaik. Śr., Ś.B. and Kāt. Śr.), *ṛtavyās*[7] (4 according to the Baud. Śr., Āp. Śr., Vaik. Śr., Ś.B. and Kāt. Śr.), *saṁyānīs*[8] (2 in the Āp. Śr. and Vaik. Śr. only), *hiraṇyeṣṭakā*[9] (1 in the Baud. Śr., Āp. Śr., and Vaik. Śr.), *bhūteṣṭakās*[10] (2 in the Āp. Śr., Vaik. Śr. and Sat. Śr.), *lokamṛṇās*[11] (in the T.S.B., Baud. Śr., V.S., and Kāt. Śr.), *retaḥsik*[12] (in the Baud. Śr.), *maṇḍaleṣṭakā*[13] (in the Āp. Śr. and Sat. Śr.), *yajuṣmatīs*[14] (in the Kāt. Śr. prescribed as optional) and *vaikhānasa*[15] (in the Śrauta Sūtra of Vaikhānasa only).

It is significant to notice that *svayamātṛṇā* and *vālakhilyās* are common

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1. T. S. IV. 3.6; K. S. XVII. 3; M. S. II. 8.3; V. S. XIV. 11; T. S. B. V. 3.2.; K. S. B. XX 11; M. S. B. III. 2.9; Ś. B. VIII. 3.1.5.10; Baud. Śr. X. 39; Āp. Sr. XVII. 1.12; Vaik. Śr. XXX/XIX. 3; Sat. Śr. XII. 1.9; Kāt. Śr. XVII. 191.
2. T. S. IV. 3.6; K. S. XVII. 3; M. S. II. 8.3; V. S. XIV. 13; T. S. B. V. 3.2; K. S. B. XX. 11; M. S. B. III. 2.9; Ś. B. VIII. 3.1.13; Baud. Śr. X. 40; Vaik. Śr. XXX/XIX. 3; Sat. Śr. XII. 1.13.
3. T. S. IV. 3.6; K. S. XVII. 3; M. S. II. 8.3; V. S. XIV. 17; T. S. B. V. 3.2; K. S. B. XX. 11; M. S. B. III. 2.9; Ś. B. VIII. 3.2.14; Vaik. Śr. XXX/XIX. 3; Kāt. Śr. XVII. 197.
4. T. S. IV. 3.6; K. S. XVII. 3; M. S. II. 8.3; *chandasyā* occurs in V. S. XIV. 18; T. S. B. V. 3.2; K. S. B. XX. 11; M. S. B. III. 2.9; Ś. B. VIII. 3.3.1; Baud. Śr. X. 40; Kāt. Śr. XVII. 198.
5. T. S. IV. 3.7; K. S. XVII. 3; M. S. II. 8.3; V. S. XIV. 21; T. S. B. V. 3.2; K. S. B. XX. 11; M. S. B. III. 2.9; Ś. B. VIII. 3.4.1; Baud. Śr. X. 40; Āp. Śr. XVII. 2.5; Vaik. Śr. XXX/XIX. 3; Sat. Śr. XII. 1.16; Kāt. Śr. XVII. 200.
6. K. S. II. 8.3; M. S. XVII. 3; V. S. XIV. 14; T. S. B. V. 3.2; K. S. B. XX. 11; M. S. B. III. 2. 3.; Ś. B. VIII. 3.2.2; Baud. Śr. X. 40; Āp. Śr. XVII. 1.17; Vaik. Śr. XXX/XIX. 3; Sat. Śr. XII. 1. 11; Kāt. Śr. XVII. 201.
7. V. S. XIV. 15, 16; Ś. B. VIII. 2.2.5; Baud. Śr. X. 40; Āp. Śr. XVII. 2.1; Vaik. Śr. XXX/XIX. 3; Kāt. Śr. XVII. 194.
8. Āp. Śr. XVII. 1.18; Vaik. Śr. XXX/XIX. 3; Sat. Śr. XII. 1.11.
9. Baud. Śr. X. 39; Āp. Śr. XVII. 1.14; Vaik. Śr. XXX/XIX. 3; Sat. Śr. XII. 1. 11.
10. Āp. Śr. XVII. 2.6; Vaik. Śr. XXX/XIX. 3; Sat. Śr. XII. 1.17.
11. V. S. XIV. 22; Ś. B. VIII. 3.4.15; Baud. Śr. X. 40; Kāt. Śr. XVII. 205.
12. Baud. Śr. X. 39.
13. Āp. Śr. XVII. 1.15; Sat. Śr. XII. 1. 11.
14. Kāt. Śr. XVII 204.
15. Vaik. Śr. XXX/XIX. 3.

to the Saṁhitās, Brāhmaṇas and Sūtras of the two schools. *Diśyā* also occurs in all the texts except in Āpastamba. *Prāṇabhṛts* occur in all the texts of the two schools except in the Śrauta Sūtras of Baudhāyana and Āpastamba. *Viśvajyotis* and *ṛtavyās* occur in the V.S., Ś.B. and Kāt. Śr. They do not figure in the Saṁhitās and the Brāhmaṇas of the Kṛṣṇa School. But the Sūtras of this school—Baudhāyana, Āpastamba and Vaikhānasa—prescribe[1] them, evidently under the influence of the Śukla School.

Similarly, the tradition of placing *lokampṛṇās* starts in the Śukla School, as embodied in the V.S., Ś.B. and Kāt. Śr. Among the texts of the Kṛṣṇa School, only the Āp. Śr[2]. adopts it.

*Jyotiṣmatīs* occurring in the T.S., T.S.B, K. S.B., M.S.B. and Baud. Śr. are confined to the Kṛṣṇa School only. But the later texts of that school, the Āp. Śr. and Vaik. Śr., drop them. The tradition of *bṛhatīs* is also confined to this school; only Vaikhānasa shows a break. The name *chandasyā* for the same brick is confined to the Śukla School[3] only.

In the texts of the Śukla school we find uniformity with the only exception that Kātyāyana provides for the option of *yajuṣmatīs*. But the Sūtras of the Kṛṣṇa School introduce a number of new bricks. Baudhāyana introduces in his school *hiraṇyeṣṭakā*, *retaḥsik*, *ṛtavyā*, *viśvajyotis* and *lokampṛṇā* for this layer. Āpastamba invents *maṇḍaleṣṭakā* and *bhūteṣṭakā*. Vaikhānasa adopts *bhūteṣṭakā* and also invents a novel brick known as the *vaikhānasa*.[4]

*Placing of the Bricks*

The *svayamātṛṇā* or the naturally perforated brick is placed in the middle. The five *diśyās* are placed on the spines in the four directions at the *retaḥsik* range, at a distance of one foot.[5] The two southern ones are half-bricks lying north and south of each other. A *viśvajyotis*[6] brick is placed to the east of the

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1. Supra. p. 176.
2. Ibid.
3. Ibid.
4. Ibid.
5. S.B.E., vol. XLIII, pt. IV, pp. 43-44 fn.
6. Ibid, p. 47 fn . 1, 2.

eastern *diśyā* just close to it, and then 2 *ṛtavyās*[1] are placed to the east of the *viśvajyotis*, one north of the other. The ten, *prāṇabhṛts*[2] are placed 5 on each side of the spine. The thirty-six *chandasyās*[3] are laid down in three sets of 12 each, along the edge of the body of the altar where the two wings and the tail join it. Then 7 *vālakhilyās*[4] are placed in front and 7 at the back. The *lokampṛṇās*[5] are placed in the remaining space of the body and on the wings and tail. Finally, loose earth is thrown on this layer.[6]

*Significance of some Special Bricks*

The *diśyās* are conceived as signifying the regions. They are placed close to the *svayamātṛṇā* which represents air. The *diśyās* are also identified with food.[7] *Dūrvā* grass and clod-bricks are placed before the *diśyās*, which symbolises the placing of animals in the air.[8] The *viśvajyotis*[9] is identified with light and offspring. The *ṛtavyās*[10] represent seasons and the *praṇabhṛts*[11], the vital airs. The *chandasyās*[12] represent cattle and food. The *vālakhilyās*[13] are so called because they are separated from one another by the width of a horse-hair. They symbolise the vital airs.[14]

*References to Bones in the Third Layer*

The *diśyā* bricks are identified with animals.[15] The range of the *retaḥsik*

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1. Ibid, p. 48 fn.
2. Ibid, p. 51 fn. 1.
3. Ibid, P. 51 fn. 2.
4. Ibid, pp. 57-58.
5. Ibid, p. 58.
6. Ibid, p. 58.
7. अथ दिश्याऽउपदधाति। दिशो वै दिश्या . . . ताऽअनन्तर्हिताः स्वयमातृण्णायाऽउपदधात्यन्तरिक्षं वै मध्यमा स्वयमातृण्णा . . . प्राणो वै स्वयमातृण्णाऽनन्तर्हितं तत्प्राणादन्नं दधाति . . . Ś.B. VIII. 3. 1. 11.
8. Ibid, VIII. 3. 1. 11.
9. Ibid, VIII. 3. 2. 1.
10. Ibid, VIII. 3. 2. 5.
11. Ibid, VIII. 3. 2. 14.
12. Ibid, VIII. 3. 3. 1.
13. यद्वालमात्रादसम्भिन्नास्तस्माद्वालखिल्याः, ibid, VIII. 3.4.1.
14. Ibid, VIII. 3. 4. 1.
15. यद्वेव दिश्याऽउपदधाति। छन्दांसि वै दिशो . . . तत्पशून्दधाति, Ś.B. VIII. 3.1.12.

in this layer also has been associated with ribs.[1] The *chandasyā* bricks are identified with cattle.[2] The *ṛtavyās* are equated with four-footed animals.[3] In connection with the *vālakhilyā* bricks, the following parts of the body of Prajāpati have been mentioned—upper and lower parts of the forefeet, the head, the neck, hip-bones, thighs, knee bones and feet.[4]

On the morning of the sixth day, the *pravargya-upasad* ceremony is performed and *purīṣa* is thrown on the altar. On the seventh day, the ceremony is again performed. The sacrificer puts on the *upānaha* of *kṛṣṇājina*. Then with certain rites, including the touching of a white horse and the reciting of the *sūdadohas*, the laying down of the bricks of the fourth layer starts.[5]

## *The Fourth Layer*

### *Bricks*

The texts of both the schools mention the names of very few bricks. They are as under:

*Akṣṇyāstomīyā*[6] (8 in the T. S. B.), *spṛt*[7] (10 in the T.S.B. and Ś.B.), *sṛṣṭi*[8] (17 in the T.S.B., Ś.B., Baud. Śr., Āp. Śr., Vaik. Śr. and Kāt. Śr.), *vyuṣṭi*[9] (16 in the T.S.B., Āp. Śr., Vaik. Śr. and Sat. Śr.), *ṛtavyā*[10] (2 in the V.S., Ś.B., Baud.

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1. पृष्टयो वै रेतःसिचौ, ibid, VIII. 3.1.13.
2. अथ च्छन्दस्याऽउपदधाति। पशवो वै छन्दांस्यन्तरिक्षं मध्यमा, ibid, VIII. 3. 3. 1.
3. यद्वेव चतस्रः। चतुष्पादा वै पशवोऽन्नं पशवो मध्यं मध्यमा चितिर्मध्यतस्तदन्नं दधाति। Ibid, VIII. 3.2. 10.
4. Ibid, VIII. 3. 4. 4, 5, 12-14.
5. Baud. Śr. X. 41.
6. T. S. IV. 3.8; K. S. XVII. 4; M. S. II. 8.4; V. S. XIV. 23; T. S. B. V. 3.3; K.S.B. XX. 13; M. S. B. III. 2.10; Ś. B. VIII. 4.1. 8-27; Baud. Śr. X. 42; Vaik. Śr. XXX/XIX. 4; Sat. Śr. XII. 1.22;
7. T. S. IV. 3.9; K. S. XVII. 4; M. S. II. 8. 5; V. S. XIV. 24; T. S. B. V. 3.4; K. S. B. XX. 13; M. S. B. III. 2.10; Ś. B. VIII. 4. 2. 1-13.
8. T. S. IV. 3.10; K. S. XVII. 4; M. S. II. 8.6; V. S. XIV. 28; T. S. B. V. 3.4; K. S. B. XX. 13; M. S. B. III. 2.10; Ś. B. VIII. 4.3.20; Baud. Śr. X. 42; Āp. Śr. XVII. 2.11; Vaik. Śr. XXX/XIX. 4; Sat. Śr. XII. 1.25; Kāt. Śr. XVII. 222.
9. T. S. IV. 3.11; T. S. B. V. 3.4; Baud. Śr. X. 42; Āp. Śr. XVII. 2.12; Vaik. Śr. XXX/XIX. 4; Sat. Śr. XII. 1. 26.
10. V. S. XIV. 27; Ś. B. VIII. 4.2.14; Baud. Śr. X. 41; Āp. Śr. XVII. 2.10; Vaik. Śr. XXX/XIX. 4; Sat. Śr. XII. 1. 24; Kāt. Śr. XVII. 221.

Śr., Āp. Śr., Vaik. Śr. and Sat. Śr.), *lokampṛṇā*[1] (V. S., Ś. B., Kāt. Śr. and Baud. Śr.), *saṁyānī*[2] (1 in the Baud.Śr. and 2 in Āp.Śr., Vaik.Śr. and Sat. Śr.), *sayuja*[3] (2 in the Baud. Śr. only), *stoma*[4] (18 in the Ś.B.) and *jaṅghāmātrī*[5] (28 in the Kāt. Śr. only, which include the *stoma* and *spṛt* bricks of the V.S. and Ś.B.).

The names *spṛt*, *sṛṣṭi* and *stoma* (*akṣṇyāstomīyā* in the Kṛṣṇa School) are common to the Saṁhitās and Brāhmaṇas of the two schools. *Sṛṣtis* continue in all the Sūtras of both the schools. *Akṣṇyāstomīyā* has been dropped only by Āpastamba in the Kṛṣṇa School. The *stoma* brick has been included among the *jaṅghāmārīs* by Kātyāyana. Further, the tradition of the *spṛt* is dropped in the Sūtras of the Kṛṣṇa School. In the Śukla School Kātyāyana includes them among the *jaṅghāmārīs*.

The two *ṛtavyās* occur throughout in the Saṁhitā, Brāhmaṇa and Sūtra of the Śukla School. The Sūtras of the Kṛṣṇa School adopt them which is evidently due to the influence of the other school. The tradition of the *lokampṛṇās* is also borrowed by Baudhāyana from the Śukla School where it occurs throughout.

The sixteen *vyuṣṭis* are confined to the Kṛṣṇa School only. Baudhāyana introduces *sayuja* and *saṁyānī* for this layer; the latter has been accepted by Āpastamba and Vaikhānasa with the only addition that they increase the number from one to two.[6]

*Placing*[7] *of the Bricks of the Fourth Layer*

The first bricks to be laid down are those representing *stomas* which are 18 in number. At each end of the spine, on the east and west, 1 brick of the size of a shank (from knee to ankle) is placed with line-marks running from west to east, the eastern one being placed north and the western one south of the spine. Then an ordinary brick, measuring a foot square, is placed near the southern end of the cross-spine. Fourteen half-foot bricks are then laid down to the

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1. V. S. XIV. 31; Ś.B. VIII. 4. 4. 12; Baud. Śr. X. 41; Kāt. Śr. XVII. 223.
2. Baud. Śr. X. 41; Āp. Śr. XVII. 2. 9; Vaik. Śr. XXX/XIX. 4; Śat. Sr. XII. 1. 23.
3. Baud. Śr. X. 41.
4. S. B. VIII. 4. 1. 8.
5. Kāt. Śr. XVII. 206 ff.
6. Supra, p. 176.
7. S. B. E., vol. XLIII, pt. IV, p. 60 fn. 3.

west of the front (eastern) brick in a row from north to south, seven being on either side of the spine.

Then the ten *spṛt*[1] bricks are placed. Two bricks of the size of the *stoma* bricks are placed at the front and back ends of the spine, south and north. Two other bricks are placed on the cross-spine immediately north of the *stoma* bricks. They measure a foot square. The other six bricks are placed behind the row of the fourteen *stoma* bricks, three on either side of the spine.

Then the two *ṛtavyās*[2] are placed just over those of the preceding layer. Thereafter, the seventeen *sṛṣṭis*[3] are placed round the centre along the *retaḥsik* range, nine bricks lying south and eight north of the spine. Five bricks form the southern side, there being a half-foot brick after every full brick (a foot square). On each of the eastern and western sides, there are four bricks, one half-brick being at every end. There are four full bricks on the northern side. Finally, the *lokampṛṇās*[4] are laid down on the altar and then loose soil is thrown thereon.

*Significance of Some Special Bricks*

The *stoma* bricks[5] are identified with the vital airs, and by placing them, the sacrificer is supposed to place Vāyu in this layer. Mahīdhara bestows the attribute of '*mṛtyumohinī*'[6] on the first four of the *stoma* bricks. It is further mentioned that by placing these bricks, the sacrificer restores to Prajāpati that part of his body which is above the waist and below the head.[7] The *spṛt*[8] bricks are so called because Prajāpati freed all beings from evil and death. The two *ṛtavyās*[9] (seasonal bricks) in this layer symbolise Saha and Sahasya, the two winter seasons.

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1. Ibid, p. 66 fn. 2.
2. Ibid, p. 70 fn. 1.
3. Ibid, p. 71 fn. 1.
4. लोकम्पृणेऽउपदधाति. . .पुरोषं निवपति. . .Ś.B. VIII. 4. 4. 12.
5. यद्वेव स्तोमानुपदधाति। प्राणा वै स्तोमाः प्राणाऽउ वै व्वायुर्व्वायुमेवैतदुपदधाति। Ś.B. VIII. 4. 1. 4, 8.
6. S.B.E., vol. XLIII, pt. IV, p. 59 fn. 1.
7. यदूर्ध्व मध्यादवाचीनं शीर्ष्णः एतदस्य तदात्मनस्तद्यदेताऽअत्रोपदधाति। Ś.B. VIII. 4.1. 6, 8.
8. सर्व्वाणि भूतानि पाप्मनो मृत्यो स्पृणेति तस्मादु सर्वास्वेव स्पृतं स्पृतमित्यनुवर्तते। Ś.B. VIII. 4. 2. 2.
9. ऋतवऽएते यदृतव्येऽऋतूनेवैतदुपदधाति सहश्च सहस्यश्च हैमन्तिकावृतूऽइति। Ś.B. VIII. 4. 2. 14.

The *sṛṣṭis* are associated with the creation of beings by Prajāpati.[1] In the T.S., these bricks are concieved as signifying[2] the origin of Brahma, Kṣatra, Vaiśya and Śūdra, and there is an invocation to Prajāpati as the creator and preserver of all beings, who freed them from disturbances.[3]

The fourth layer represents what is above the air and below the heaven.[4] It is identified with Brahma[5] and is concieved as the layer of Prajāpati.[6] It is also called *ārṣeyavatī* as *ṛṣis* are laid down in this layer and *bandhumatī*[7], for Vāyu is conceived as being laid down in it.

*Reference to the Bones and Parts of the Human Body*

The fourth layer is conceived as the layer of Prajāpati.[8] The eighteen *stoma* bricks are associated with the restoration of the various parts of the body of Prajāpati.[9] The range of the *retaḥsik* is associated with ribs in this layer also.[10] In connection with the restoration[11] of Agni, conceived as an animal, we find reference to the head, the hind-feet, two arms, the ribs (in the middle), jaws and the tongue.

In the morning of the eighth day, the *pravargya-upasad* ceremony is again performed and *purīṣa* is thrown. On the ninth day also, this ceremony is repeated. A number of other ancillary rites have been prescribed which include the putting on of *kṛṣṇājina-upānaha*, and the touching of the white horse.[12]

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1. तद्यदसृजत तस्मात्सृष्ट्यस्ताः etc. Ś.B. VIII. 4.3.20.
2. T.S. IV. 3.10.
3. भूतानां पतिः, धाता, भूतान्शाम्यन् । Ibid, IV. 3.10.
4. चतुर्थीं चितिं . . . यदूर्ध्वमन्तरिक्षादवाचीनं दिवः । Ś.B. VIII. 4.1.2.
5. ब्रह्म वै चतुर्थी चितिः । Ś.B. VIII. 4.1.3.
6. सा प्रजापतिचितिर्यत्प्रजापतिमुपादधत . . . । Ibid, VIII. 4.4.12.
7. Ibid, VIII. 4.4.12.
8. Supra, fn. 6.
9. Ś.B. VIII. 4. 1. 8; VIII. 4. 4. 12.
10. पृष्ट्यो वै रेतःसिचौ । Ibid, VIII. 4. 3. 20.
11. Ibid, VIII. 4. 4. 4-11.
12. Baud. Śr. X. 44.

## *The Fifth Layer*

### *Bricks**

We find a large number of names of bricks mentioned in connection with the fifth layer in all the texts. They are as follows :—

*Asapatnā*[1] (5 in the Ś.B.), *svayamātṛṇā*,[2] *virāja*[3] (12 in the T.S.B., 40 in Baud. Śr., Āp.Śr., Vaik.Śr., Ś.B. and Kāt.Śr.), *stomabhāgā*[4] (29 in the T.S.B, Ś.B., 17 in Vaik. Śr.), *nākasad*[5] (5 in the Āp.Śr., Vaik.Śr. and Ś.B.), *pañcacūḍā*[6] (5 in the T.S.B., Āp.Śr., Vaik. Śr., Ś.B. and Kāt.Śr.), *vikarṇī*,[7] *chandobhidhā*[8] (8 in the Āp. Śr.), *kṛttikā*[9] (7 in the Āp.Śr.), *maṇḍaleṣṭakā*,[10] *viśvajyotis*,[11]

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*Only those numbers have been specified within brackets which have been indicated as more than one.

1. T. S. IV. 3.12; K. S. XVII. 6; M. S. II. 8.7; V. S. XV. 1; T. S. B. V. 3.5; K. S. B. XXI. 2; M. S. B. III. 2.10; Ś. B. VIII. 5.1. 4-9; Baud. Śr. X. 45; Āp. Śr. XVII. 3.2; Vaik. Śr. XXX/XIX. 4; Kāt. Śr. XVII. 229.
2. T. S. IV. 4.2; K. S. XVII. 10; M. S. II. 8.12; V. S. XV. 63; T. S. B. V. 3.7; K. S. B. XXI. 2; M. S. B. III. 3.1; Ś. B. VIII. 7.3.9; Baud. Śr. X. 44; Āp. Śr. XVII. 3. 8; Vaik. Śr. XXX/XIX. 4; Sat. Śr. XII. 1.43; Kāt. Śr. XVII. 261.
3. T. S. IV. 3.12; K. S. XVII. 6; M. S. II. 8.7; V. S. XV. 4; T. S. B. V. 3.5; K. S. B. XXI. 2; M. S. B. III. 2.10; Ś. B. VIII. 5.1.17; Baud. Śr. X. 45; Āp. Śr. XVII. 3.4; Vaik. Śr. XXX/XIX. 4; Sat. Śr. XII. 1.31; Kāt. Śr. XVII. 228.
4. T. S. IV. 4.1; K. S. XVII. 7; M. S. II. 8.8; V. S. XV. 6; T. S. B. V. 3.6; K. S. B. XXI. 2; M. S. B. III. 2.10; Ś. B. VIII. 5.4.8; Baud. Śr. X. 45; Vaik. Śr. XXX/XIX. 4; Sat. Śr. XII. 1.31; Kāt. Śr. XVII. 229.
5. T. S. IV. 4.2; K. S. XVII. 8; M. S. II. 8.9; V. S. XV. 10; T. S. B. V. 3.7; K. S. B. XXI. 2; M. S. B. III. 3.1; Ś. B. VIII. 6.1. 5-9; Baud. Śr. X. 45; Āp. Śr. XVII. 3.6; Vaik. Śr. XXX/XIX. 4; Sat. Śr. XII. 1.33; Kāt. Śr. XVII. 236.
6. T. S. IV. 4.2; K. S. XVII. 9; M. S. II. 8.10; V. S. XV. 15; T. S. B. V. 3.7; K. S. B. XXI. 2; M. S. B. III. 3.1; Ś. B. VIII. 6.1.11; Baud. Śr. X. 45; Āp. Śr. XVII 3.7; Vaik. Śr. XXX/XIX. 4; Kāt. Śr. XVII. 237.
7. T. S. IV. 4.2; K. S. XVII. 10; M. S. II. 8.12; V. S. XV. 62; T. S. B. V. 3. 7; K. S. B. XXI. 2; M. S. B. III. 3.1; Ś. B. VIII. 7. 3. 9; Āp. Śr. XVII. 3.9; Vaik. Śr. XXX/XIX. 4; Sat. Śr. XII. 1.43; Kāt. Śr. XVII. 261.
8. T. S. IV. 4. 4.; M. S. II. 13.7, 8; V. S. XV. 20; T. S. B. V. 3. 8; K. S. B. XXI. 4; M. S. B. III. 3.2; Ś. B. VIII. 7.1.2; Kāt. Śr. XVII. 240.
9. T. S. IV. 4. 5; T. S. B. V. 3.9; Baud. Śr. X. 45; Āp. Śr. XVII. 5. 4; Vaik. Śr. XXX/XIX. 5; Sat. Śr. XII. 2.2.
10. T. S. IV. 4.5; T. S. B. V. 3.9; Āp. Śr. XVII. 4.2; Vaik. Śr. XXX/XIX. 4.
11. T. S. IV. 4.6; M. S. II. 8.13; V. S. XV. 58; T. S. B. V. 3.9; Ś. B. VIII. 7.1.9; Baud. Śr. X. 44; Āp. Śr. XVII. 4.4; Vaik. Śr. XXX/XIX. 4; Kāt. Śr. XVII. 259.

*vṛṣṭisanī*[1] (5 in the Āp. Śr. and Vaik. Śr.), *saṁyānī*[2] (2 in the Baud. Śr., Āp. Śr. and Vaik. Śr.), *ādityeṣṭakā*,[3] *ghṛteṣṭakā*[4] (5 in the Vaik. Śr.), *yaśodā*[5] (5 in the Āp. Śr.), *bhūyaskṛt*[6] (5 in the Āp. Śr. and Vaik. Śr.), *agnirūpiṇī*[7] (5 in the Āp. Śr.), *āyuṣyā*[8] (5 in the Āp. Śr.), *agnihṛdyā*,[9] *indratanvā*[10] (22 in the Āp. Śr. and Vaik. Śr.), *yajñatanvā*[11] (33 in the Āp. Śr. and Vaik. Śr.), *jyotiṣmatī*[12] (12 in the Āp. Śr. and Vaik. Śr.), *nakṣatreṣṭakā*[13], *ṛtavyā*[14] (2 in the Baud. Śr., Āp. Śr. and Ś.B.), *chandasyā*[15] (30 in the Ś.B. and 6 in the Kāt. Śr.; they may be the same as the *chandobhidhā* of the Kṛṣṇa School), *bhūteṣṭakā*,[16] *ajyānī*,[17] *rāṣṭrabhṛt*,[18] *paurṇamāsī*,[19]

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1. T. S. IV. 4.6; M. S. II. 8.13; T. S. B. V. 3.10; K. S. B. XXII. 6; M. S. B. III. 3.2; Baud. Śr. X. 45; Vaik. Śr. XXX/XIX. 5; Sat. Śr. XII. 2.3.
2. T. S. IV. 4.6; M. S. II. 8.13; T. S. B. V. 3.10; K. S. B. XXII. 6; M. S. B. III. 3.2; Baud. Śr. X. 44; Āp. Śr. XVII. 4.6; Vaik. Śr. XXX/XIX. 4; Sat. Śr. XII. 1.35.
3. T. S. IV. 4. 6; M. S. II. 8. 13; T. S. B. V. 3.10; K. S. B. XXII. 6; M. S. B. III. 3.2; Āp. Śr. XVII. 5.6; Vaik. Śr. XXX/XIX. 5; Sat. Śr. XII. 2.4.
4. T. S. IV. 4.6; M. S. II. 8.13; T. S. B. V. 3.10; K. S. B. XXII. 6; M. S. B. III. 3.2; Baud. Śr. X. 45; Āp. Śr. XVII. 5.8; Vaik. Śr. XXX/XIX. 5; Sat. Śr. XII. 2. 5.
5. T. S. IV. 4. 6; T. S. B. V. 3.10; K. S. B. XXII. 6; M. S. B. III. 3.2; Baud. Śr. X. 48; Āp. Śr. XVII. 5.10; Vaik. Śr. XXX/XIX. 5; Sat. Śr. XII. 2.6.
6. T. S. IV. 4.7; M. S. II. 13.12,18; T. S. B. V. 3. 11; M. S. B. III. 3.2; Baud. Śr. X. 45; Āp. Śr. XVII. 5.10; Vaik. Śr. XXX/XIX. 5; Sat. Śr. XII. 2.7.
7. T. S. IV. 4.7; M. S. II. 13.12,18; T. S. B. V. 3.11; K. S. B. XXII. 6; M. S. B. III. 3. 2; Āp. Śr. XVII. 5.11; Sat. Śr. XII. 2.10.
8. T. S. IV. 4.7; M. S. II. 13.12, 18; T. S. B. V. 3.11; K. S. B. XXII. 6; M. S. B. III. 3. 2; Baud. Śr. X. 45; Āp. Śr. XVII. 5.13; Sat. Śr. XII. 2.10.
9. T. S. IV. 4.7; M. S. II. 13.12,18; T. S. B. V. 3.11; K. S. B. XXII. 6; M. S. B. III. 3.2; Āp. Śr. XVII. 5.14; Sat. Śr. XII. 2.11;
10. T.S. IV. 4.8; T. S. B. V. 4.1; K. S. B. XXII. 6; Baud. Śr. X. 46; Āp. Śr. XVII. 6.3; Vaik. Śr. XXX/XIX. 5; Sat. Śr. XII. 2.13.
11. T.S. IV. 4.9; T. S. B. V. 4.1; K. S. B. XXII. 6; Baud. Śr. X. 46; Āp. Śr. XVII. 6.3; Vaik. Śr. XXX/XIX. 5; Sat. Śr. XII. 2.15.
12. T.S. IV. 4.10; M. S. II. 13.20; T. S. B. V. 4.1; K. S. B. XXII. 6; M. S. B. III. 3.2; Baud. Śr. X. 46; Āp. Śr. XVII. 6.4; Vaik. Śr. XXX/XIX. 5; Sat. Śr. XII. 2.15.
13. T. S. IV. 4. 10; M. S. II. 13.20; T. S. B. V. 4.1; K. S. B. XXII. 6; M. S. B. III. 3.3; Baud. Śr. X. 46; Āp. Śr. XVII. 6.5; Vaik. Śr. XXX/XIX. 5; Sat. Śr. XII. 2.18.
14. T. S. IV. 4.11; M. S. II. 8.12; V. S. XV. 7; T. S. B. V. 4. 2; K. S. B. XXII. 6; M. S. B. III. 3.4; Ś. B. VIII. 7.1.9; Baud. Śr. X. 46; Āp. Śr. XVII. 4.5; Sat. Śr. XII. 2.12; Kāt. Śr. XVII. 258.
15. T.S. IV. 4.4; M.S. II. 13. 7, 8; V.S. XV. 20; T.S.B. V. 3.8; K.S.B. XXI. 4; M.S.B. III. 3.2.; Ś.B. VIII. 7.1.2; Kāt. Śr. XVII. 240.
16. Baud. Śr. X. 46.
17. Ibid, X. 46.
18. Ibid, X. 46.
19. Ibid, X. 46.

*lokampṛṇā*[1], *hiraṇyeṣṭakā*[2], *retaḥsik*, [3] *jīmūta*[4] (5 in the Āp. Śr., Vaik.Śr. and Sat. Śr.), *draviṇodā*[5] (5 in the Āp. Śr. and Sat. Śr.) and *upaśīvarī*[6] (16 in the Āp. Śr. only).

In all the texts of the Kṛṣṇa School[7], we find a large number of bricks, the maximum being in the Āp.Śr. where we come across as many as twenty-eight brick-names. In the Saṁhitās and Brāhmaṇas of this school, there is uniformity in the order of bricks but not in the Sūtras. On the other hand, there are only eleven names of bricks in the Śukla School[8] which occur in a uniform order.

The bricks which are common to the Saṁhitās, Brāhmaṇas and Sūtras of both the schools[9] are *asapatnā*, *svayamātṛnā*, *virāja*, *stomabhāgā* (except in the Āp.Śr.), *pañcacūḍā*, *nākasad*, *vikarṇī* (except in Baudhāyana), *ṛtavyā* (except in Vaikhānasa) and *viśvajyotis*.

*Chandobhidhā* occurs in all the Saṁhitās and Brāhmaṇas of the Kṛṣṇa School, but it has been dropped in the Sūtras of that school. In the Śukla School, however, this brick continues throughout under a similar name—*chandasyā*. *Lokaṁpṛṇā* occurs throughout in the texts of the Śukla School and under their influence Baudhāyana accepts this name. The remaining bricks are confined to the Kṛṣṇa School only. Among the Sūtrakāras, we find a marked tendency to coin new names of bricks. Thus Baudhāyana introduces *bhūteṣṭakā*, *ajyānī*, *rāṣṭrabhṛt* and *paurṇamāsī*, and Āpastamba further prescribes *hiraṇyeṣṭakā*, *retaḥsik*, *jīmūta*, *draviṇodā* and *upaśīvarī*.[10]

We find some changes in the number of bricks also; for instance, the T.S.B. prescribes only 12 *virāja* bricks, but the Baud.Śr., Āp. Śr. and Vaik. Śr. raise the number to 40. *Stomabhāgā* bricks are 29 in the T.S.B. but only 7 in the Vaik.Śr. In the T.S.B. we find reference to 1 *jyotiṣmatī*, 1 *yajñatanvā* and

1. V.S. XV. 59; Ś.B. VIII. 7. 1. 2; Kāt. Śr. XVII. 260.
2. Āp. Śr. XVII. 4. 1; Vaik. Śr. XXX/XIX. 4.
3. Āp. Śr. XVII. 4. 7; Vaik. Śr. XXX/XIX. 5.
4. Āp. Śr. XVII. 5. 3; Vaik. Śr. XXX/XIX. 5; Sat. Śr. XII. 2. 17.
5. Āp. Śr. XVII. 5. 12; Sat. Śr. XII. 2. 9.
6. Āp. Śr. XVII. 5.16.
7. Supra, p. 183, 184.
8. Ibid.
9. Ibid.
10. Ibid.

1 *indratanvā*, but in the Āp. Śr. and Vaik. Śr. their numbers are raised to 12, 33 and 22 respectively.[1]

In the Śukla School also Kātyāyana reduces the number of *chandasyās*[2] from 30 (in the Ś.B.) to 6.

*Placing*[3] *of Bricks*

Four *asapatnā*[4] bricks are laid down to the left of the four ends of the spines. The space of one or half foot is left between each brick and the respective spine. The line-marks of each brick run parallel to the spine. The fifth *asapatnā* brick is laid down at a distance of one cubit to the north of the southern one. The 40 *chandasyā* or *virāja*[5] bricks are laid down at the end of the spines, 10 in each quarter. The central portion[6] of the fifth layer symbolically represents the firmament. A circle round the centre is formed by a continuous ring of 29 *stomabhāgās*. Within this circle, 5 *nākasad* bricks are placed,[7] 1 on the northern and 1 on the western spine; 2 half-bricks on the southern spine and 1 full brick on the eastern side in the second place, north of the spine. One *pañcacūḍā* is placed on each *nākasad* brick. Of the two sets of 3 *chandasyā* bricks, each falls in front of the western *nākasad*, only 1 brick of each set falling on the spine. One set of 3 such bricks is similarly laid down within the circle on the eastern side (so as to leave a space of 1 *viśvajyotis* and the 2 *ṛtavyās* in front). The remaining space in the centre is now filled up by the Gārhapatya hearth which consists of 8 bricks. Then a second layer of 8 bricks corresponding to this is laid which is called *punaściti*.[8] Then two *ṛtavyās* are laid down within the ring touching the eastern bricks of the circle; the *viśvajyotis* brick is placed immediately west of them. The available space of the layer is then filled up with the *lokampṛṇās* and loose earth is scattered on it. Lastly, *svayamātṛṇā* is placed in the centre and *vikarṇī*, immediately north of it.[9]

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1. Ibid.
2. Supra, p. 184.
3. S.B.E., vol. XLIII, pt. IV, p. 84 fn. 1.
4. Ś.B. VIII. 5.1. 4-9.
5. S B.E., Vol XLIII, pt. IV, p. 87, fn. 2.
6. Ibid, pp. 97 ff.
7. Ibid, loc. cit.
8. Ś.B. VIII. 6. 3. 8; S.B.E., vol. XLIII, pt. IV, pt. 119 fn. 2.
9. Ś.B. VIII. 7.3.11 ff.

*Significance of some Special Bricks*

The placing of the *asapatnā* bricks is associated with the removal of evils and adversaries.[1] The *virāja* bricks have been associated with light.[2] These are also called *chandasyās* which are connected with food.[3] The placing of the *nākasad* bricks enables the sacrificer to win heaven.[4] The *chandasyās* are as usual compared with cattle.[5] The *ṛtavyā* bricks are identified with seasons and nobility. Other bricks represent peasantry. Thus the nobility is placed among the peasantry as the eater.[6] The *viśvajyotis*[7] has been compared with the Sun and progeny. The *stomabhāgā*[8] bricks are identified with the heavenly world. The *pañcacūḍā* bricks are characterised with five knobs (*cūḍā*).[9] The *vikarṇī*[10] brick represents Vāyu and the *svayamātṛṇā*, the sky and the head of Prajāpati.

*Reference to Bones*

The *chandasyā* bricks are identified with cattle and with heads placed on the forepart of the altar. These bricks are placed in the range of the *retaḥsik* bricks which are, as before, identified with ribs. The *asapatnā* bricks are identified with arms.[11]

We also find a general view[12] of the different layers of the body of the altar with reference to the various parts of the body and bones.

The first layer is conceived as the legs and the downward vital air, the filling of the soil is flesh. We find reference to the term *asthīṣṭakā* in this conne-

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1. एताऽइष्टकाऽअपश्यन्नसपत्नास्ताऽउपादधत ताभिरेतं लोकमसपत्नमनुपवाधमकुर्व्वत। Ś.B. VIII. 5. 1. 4.
2. Ibid, VIII. 5. 1. 5.
3. Ibid, VIII. 5. 2. 1.
4. यदेताऽउपदधात्येतस्मिन्नेवैतन्नाके स्वर्गे लोके सीदति। Ibid, VIII. 6. 1. 1.
5. Ibid, VIII. 6. 2. 1.
6. ऋतवऽएते. . .क्षत्रं वाऽऋतव्या व्विशऽइमाऽइतराऽइष्टकाः क्षत्रं तद्विश्यत्तारं. . .Ś.B. VIII. 7. 1. 1, 2.
7. Ibid, VIII. 7. 1 .9.
8. Ibid, VIII. 5. 3. 4.
9. Ibid, VIII. 6. 1. 11.
10. Ś.B. VIII. 7. 3. 9, 15, 16.
11. Ś.B. VIII. 6. 2. 1 ff.
12. Ś.B. VII. 7. 4. 19-21.

ction,[1] which means the complete identification of bricks and bones and which thus indicates that bones also could be placed as *iṣṭakās*. The second layer is that part of the body which is above the legs and below the waist, and the filling of the soil is flesh. The third layer is the waist, and the fourth, that part of the body which is above the waist and below the neck. The fifth layer is the neck, the sixth the head and the seventh the vital airs.[2]

*The Śatarudriya and other Ceremonies*[3]

The first solemn ceremony which is performed on the completed fire altar is the Śatarudriya consisting of 425 oblations to Rudra, the god representing the dreadful aspects of life and nature. Appropriate formulas are addressed to the various forms of this terrible god, Rudra, Bhava, Paśupati, Nīlagrīva, Śarva etc. and his associates for the appeasement of their wrath. Rudra, who is the hundred-headed god, is conceived here as the chief (*kṣatra*) and those others originating from the drops are regarded as peasants (clansmen).

The section, comprising the Śatarudriya, is mainly addressed to a single deity, Rudra; for, it is him the sacrificer thereby gratifies. Offerings of wild sesamum seeds and *gavedhuka* flower by means of an *arka*-leaf are made. The sacrificer makes offering on three enclosing stones. Then libations of the unstringing formulas are offered to Rudra so that his bow may be unstrung and it may not injure any one. The fire altar is then sprinkled by the Agnīdhra with water on every side, which symbolises the flowing of ocean round the worlds. A stone is thrown outside the fire altar in the south-western direction in the region of Nirṛti, which symbolises the putting out of pain. After taking possession of the bricks as milch-cows, the sacrificer draws a frog, a lotus-flower and a bamboo-shoot across the central part of the altar and then the Adhvaryu sings *sāman* round it. On the day of preparation for the Soma sacrifices, libations are offered on the *svayamātṛṇā*, the altar is sprinkled with sour curd, honey and ghee, and the *pravargya* ceremony is performed. The leading forward of Agni to the altar involves a number of ceremonies including the putting of legs on the Āhavanīya fire and the offering of oblations thereon.

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1. मांसं पुरीषं यत्प्रथमां चितिं पुरीषेण प्रच्छादयत्येतदस्य तदात्मनो मांसैः संछादयतीष्टका उपधायास्थीष्टकाऽअस्थि तन्मांसैः संछादयति. . .Ś.B. VIII. 7. 4. 19.
2. Ś.B. VIII. 7.4. 12 ff.
3. T.S.B. V. 4.3 ff; Ś.B. IX. 1 ff.

This is followed by the installation and consecration (*abhiṣeka*) of Agni which includes offering of cakes to Vaiśvānara and Maruts, and Vasordhārā or shower of wealth, consisting of uninterrupted series of 401 oblations to Agni, through which the sacrificer is supposed to acquire all the powers of Rudra; this rite is intended as the consecration of Agni. The other important rites in this connection are Ardhendra and Graha oblations, Kalpa, Vājaprasavīya and Pārtha libations, consecration of the sacrificer and Rāṣṭrabhṛt or realm-sustaining oblations. After this the preparatory rites of the Soma sacrifice are performed which include the building of the Dhiṣṇyā hearths, the Agniṣomīya (an animal sacrifice), the oblations to regions and the Paśupuroḍāśa offering. Next comes the Sutyā or the day of the Soma sacrifice. A number of ceremonies, beginning with the Agniyoga (yoking of the fire altar) and ending with an offering to Mitra-Varuṇa and the recitation of propitiatory hymns to Indra and Agni, are performed.

## CHAPTER TEN

# THE PURUṢAMEDHA

### *The Meaning and Nature of the Puruṣamedha*

The Puruṣamedha, a variety of the Soma sacrifice, is so called because it involves the slaughter of men as sacrificial victims.[1] Just as a horse is slaughtered in the Aśvamedha, similarly human victims are killed in the Puruṣamedha.[2]

The Puruṣamedha is a five-day sacrifice.[3] The Ś. B.[4], however, states that it may be extended for 40 days. In its performance the procedure of Aśvamedha is followed.[5] The evidence of the Āp. Śr. and Kāt. Śr. reveals that this sacrifice can be performed only by a Brāhmaṇa or a Kṣatriya.[6] The Sat. Śr.[7] lays down that it should be performed by a ruler or a Brāhmaṇa.

### *Significance and Object*

The Ś.B.[8] states that, having performed the Puruṣamedha, Puruṣa Nārāyaṇa surpassed all beings in virtues and excellence. Similarly, he, who performs this sacrifice, surpasses all beings and obtains everything. The Puruṣamedha

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1. यदस्मिन्मेध्यान्पुरुषानालभते तस्माद्वेव पुरुषमेधः। Ś.B. XIII. 6. 2. 1.
2. आश्वमेधिकं मध्यमं पञ्चममहः। तस्मिन्नश्वं मेध्यमालभते। पौरुषमेधिकं मध्यमं षष्ठम्। तस्मिन्पुरुषान्। Āp. Śr. XX. 25. 10, 11; Also Sat. Śr. XIV. 6. 21, 22.
3. Ś.B. XIII. 6.1.1.; पञ्चाहः पुरुषमेधः। Āp. Śr. XX. 24.1.
4. Ś.B. XIII. 6.1.2.
5. सर्वमाश्वमेधिकम्। Śānk. Śr. XVI. 10. 2; Cf. Sat. Śr. XIV. 6.2.; पुरुषमेधोऽश्वमेधवत्। Vait. Śr. VII. 37.10.
6. ब्राह्मणो राजन्यो वा यजेत। Āp. Śr. XX. 24.2.; ब्राह्मणराजन्ययोः। Kāt. Śr. XXI. 2.
7. राजा ब्राह्मणो वा, Sat. Śr. XIV. 6.1.
8. Ś.B. XIII. 6.1.1.

is everything. In the Śāṅk. Śr.[1] we find that Prajāpati obtained by this sacrifice that which he could not do by the Aśvamedha. According to the Sat. Śr.[2] also, the object of this sacrifice is to excel others and to obtain independence and political supremacy.

In the Gop. B.[3] we find the gradation of the sacrifices including the Puruṣamedha from the point of view of the political status obtained by their performance. Thus it has been stated that by performing the Rājasūya, Vājapeya, Aśvamedha, Puruṣamedha and Sarvamedha, Prajāpati obtained (won) the status of *rājā, samrāṭ, svarāṭ, virāṭ* and *sarvarāṭ* respectively.

### *Main Constituents of the Puruṣamedha*

This sacrifice has 23 *dīkṣās*, 12 *upasads* and 5 *sutyās* (Soma days).[4] The first day of it is the Agniṣṭoma, the second an Ukthya, the third an Atirātra, the fourth an Ukthya and the fifth an Agniṣṭoma.[5] The central Atirātra is the chief rite and the main victims of the Puruṣamedha are sacrificed on this day.[6]

### *The Preliminary Rites*

In the Śāṅk. Śr. and Vait. Śr., we get details regarding the preliminary rites which, to some extent, resemble those in the case of the Aśvamedha. But there are certain additions also. First of all, offerings are made to Agnikāma (desire), Agnidātṛ (the giver) and Agni Pathikṛt (the path-maker).[7] Both these texts

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1. प्रजापतिरश्वमेधेनेष्ट्वा पुरुषमेधमपश्यत्। तस्य यदनाप्तमश्वमेधेनासीत्तत्सर्वं पुरुषमेधेनाप्नोत्। Śāṅk.Śr. XVI. 10.1.
2. यः कामयेत सर्वेषां भूतानां ज्यैष्ठ्यं श्रैष्ठ्यं स्वाराज्यमाधिपत्यं गच्छेयमिति। एतेन यजेत। Sat.Śr. XIV. 6.1; also Āp. Śr. XX. 24.3. (ओजो वीर्यमाप्नोति। सर्वा व्युष्टीर्व्यश्नुते)
3. राजसूयेनेष्ट्वा राजेति नामाधत्त...वाजपेयेनेष्ट्वा सम्राडिति नामाधत्त...पुरुषमेधेनेष्ट्वा विराडिति नामाधत्त... सर्वमेधेनेष्ट्वा सर्वराडिति नामाधत्त। Gop. B. V. 8.
4. Ś.B. XIII. 1.6.2; Cf. पुरुषमेधस्त्रयोविंशतिदीक्षोऽतिष्ठाकामस्य। Kāt.Śr. XXI. 1. Cf. त्रयोविंशतिर्दीक्षाः। द्वादशोपसदः। पञ्च सुत्याः। Sat. Śr. XIV. 6.3.
5. Ś.B. XIII. 6.1.8; Cf. अग्निष्टोमावन्तरेणातिरात्र उक्थ्यपक्षः। Kāt.Śr. XXI. 3. Cf. एकादशाग्निषोमीया अग्निष्टोमः प्रथममह उक्थ्यो द्वितीयमतिरात्रस्तृतीयमुक्थ्यश्चतुर्थमग्निष्टोमः पञ्चमम् मध्यमेऽहनि पौरुषमेधिकान्पशूनुपाकरोति। Sat. Śr. XIV. 6.3.
6. Sat. Śr., loc. cit.
7. Śānk. Śr. XVI. 10. 4–8.; Vait. Śr. VII. 37.12.

lay down that a Brāhmaṇa or a Kṣatriya should be purchased[1] for 1000 cows and 100 horses for the purpose of sacrifice. The Vait. Śr. gives additional information regarding the purchase of the victims. It lays down that the sacrificer should publicly proclaim that all that are subject to him should assemble together.[2] Then he should announce, 'To whom shall I give a thousand (cows) and a hundred horses, to be the property of his relatives[3] ? Through whom shall I gain my object[4] ?' If some one offers himself, it is further announced that the transaction is completed.[5] In case no body comes forward, the nearest enemy is conquered and caught as victim for this sacrifice.[6] The fixed price is given to the relatives of the victim[7] and it is further announced that if the victim's wife is to cause any obstacle in this matter, her entire property would be seized and the woman, if not a Brāhmaṇī, would be put to death.[8] After being bathed and adorned,[9] the victim is set free for a year.[10] He is not to commit any breach of chastity.[11] For a year, offerings to Anumati (approval), Pathyāsvasti and Aditi are made.[12] Śāṅk. Śr. further lays down in this connection that the three daily oblations to Savitṛ should be performed in the reverse order.[13]

At the end of the year, according to the evidence of the Vait. Śr.,[14] an animal offering is made to Indra-Pūṣan.

In the Śāṅk. Śr.[15] we get details regarding the recitation of 10 *nārāśaṁsas*

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1. ब्राह्मणं क्षत्रियं वा सहस्रेण शताश्वेनावक्रीय etc. Sāṅk.Śr. XVI. 10.9; कस्मै सहस्रं शताश्वं स्वं ज्ञातिभ्यो दद्याम्। यदि ब्राह्मणः क्षत्रियो वा etc. Vait. Śr. VII. 37. 14, 15.
2. यजमानस्य विजितं सर्वं समैत्विति जनपदमुच्चैः श्रावयति। Vait. Śr. VII. 37.13.
3. Supra, fn. 1.
4. Vait. Śr. VII. 37.14.
5. Ibid. VII. 37.15 (यदि ब्राह्मणः क्षत्रियो वा प्रतिपद्यते सिद्धं कर्मेत्याचक्षते)।
6. न चेत्प्रतिपद्येत नेदिष्ठं सपत्नं विजित्य तेन यजेत, ibid, VII. 37.16.
7. तस्मै ज्ञातिभ्यस्तद्दद्यात्। Ibid, VII. 37.17.
8. यस्य स्त्री संभाषेत तस्य सर्वस्वमादाय तामब्राह्मणीं हनिष्य इत्युच्चैः श्रावयेत्। Ibid, VII. 37.18.
9. तं ह स्नातमलंकृतमुत्सृज्यमानं सहस्रबाहुः पुरुषः केन पार्ष्णी इत्यनुमन्त्रयते। Ibid, VII. 37. 19. (The priest recites the hymns A.V. XIX. 6; X. 2-20)
10. संवत्सरायोत्सृजन्ति। Śāṅk. Śr. XVI. 10.9. संवत्सरमिष्टयः etc. Vait. Śr. VII. 37.20 also 21.
11. सर्वकामिनमन्यत्रा ब्रह्मचर्यात्। Śāṅk. Śr. XVI. 10. 9.
12. अथानुमतये पथ्यायै स्वस्तयेऽदितय इति संवत्सरं हवींषि। Śāṅk. Śr. XVI. 10.11; also Vait.Śr. VII. 37.20.
13. सावित्रैर्विपर्यासम्। Śāṅk. Śr. XVI. 10.12.
14. संवत्सरान्त ऐन्द्रापौष्णः पशुः। Vait. Śr. VII. 37. 21.
15. Śāṅk. Śr. XVI. 11.

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including those about Śunaḥśepa, Kākṣīvat and others. The recital of the Śunaḥśepa legend is significant in this connection for it gives the indication of a human sacrifice.

### *The Main Rites of the Sacrifice*

According to the Ś.B.,[1] Kāt. Śr.,[2] Āp. Śr.[3] and Sat. Śr.[4], the number of *yūpas* required for the sacrifice should be 11. But the Śāṅk. Śr.[5] prescribes 25 *yūpas* each of which should be 25 *aratnis* (cubits) long. The same text[6] lays down that there should be 10 of *bilva* wood, 12 of *khadira* wood, and one of *rajjudāla vāsārala* (the stake which stands opposite the Āhavanīya fire). In the Vait. Śr[7]., however, we find reference only to the *Viśākha yūpa*.

The first important rite, according to the Ś.B.[8], is performed on the *Upavasatha* day. On this day, 11 victims, sacred to Agni and Soma, are sacrificed at 11 stakes. The evidence of Kātyāyana,[9] Āpastamba[10] and Satyāṣāḍha[11] also leads to the same conclusion. The Śāṅk. Śr.[12], however, lays down that the number of victims should be 25. The Ś.B.[13] further prescribes that on the *sutyā* days, there should be the *Savanīya* victims of the set of 11 stakes.

The most important sacrifice is performed on the third day which is known as Atirātra.[14] The distribution of human victims over the 11 stakes, according to the Ś.B., should be as follows:[15]

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1. Ś.B. XIII. 6.1.6.
2. यूपैकादशिनी भवति। Kāt. Śr. XXI. 4.
3. Āp. Śr. XX. 24.4.
4. Sat. Śr. XIV. 6.3.
5. पञ्चविंशतिर्यूपाः। पञ्चविंशत्यरत्नयः। Śāṅk. Śr. XVI. 12. 1,2.
6. Ibid, XVI. 12. 3-5.
7. Vait. Śr. VII. 37. 9.
8. एकादशाग्नीषोमीयाः पशवऽउपवसथे। Ś.B. XIII. 6.1.4. यूपाऽएकादशक्षरा etc. Ibid.
9. Kāt. Śr. XXI. 4.
10. एकादशसु यूपेष्वेकादशाग्नीषोमीयाः। Āp. Śr. XX. 24. 4.
11. Sat. Śr. XIV. 6. 3.
12. पञ्चविंशतिरग्नीषोमीयाः। Śāṅk. Śr. XVI. 12. 6.
13. एकादशिनाः सुत्यासु पशवो भवन्ति। Ś.B. XIII. 6. 1. 5.
14. आत्माऽतिरात्र. . .स मध्ये. . .Ś.B. XIII. 6. 1. 9.
15. Ibid, XIII. 6. 2. 5-8.

The first 48 victims are tied to the central stake. According to the Kāt. Śr.[1], this is the *agniṣṭha yūpa*. Then 11 victims are tied to each of the remaining 10 *yūpas*. Lastly, 8 victims, sacred to Prajāpati, are taken for sacrifice. Thus, the total number comes to 166. In the V.S.,[2] however, we find the enumeration of 184 victims. According to Mahīdhara,[3] out of these additional victims, 14 are dedicated to various deities and the remaining are described[4] in the same way as the 8 victims sacred to Prajāpati, mentioned above, who should belong neither to the Śūdra nor the Brāhmaṇa caste. According to the Kāt. Śr.[5], they are to be added to the 11 victims of the second stake. The other details in Kātyāyana[6] are the same as in the Ś.B.

Among the Sūtras of the Kṛṣṇa Yajurveda, only Satyāṣāḍha[7] gives the details about the tying of the human victims to the stakes, which are almost the same as in the Ś.B. and the Kāt. Śr. This text lays down that either the remaining or only 8 victims should be added to the 11 victims of the middle stake.[8]

*Release and Slaughter of the Human Victims on the Central Day*

According to the texts[9] of the Śukla as well as the Kṛṣṇa Yajurveda, the Brāhmaṇa priest, seated to the right (south) of them, praises the men bound to the stakes by means of the Puruṣa Nārāyaṇa litany (R.V.X. 90). This establishes the link of human sacrifice with the Puruṣasūkta of the R.V.

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1. Kāt.Śr. XXI. 8.
2. In the V.S. (Book XXX) the total number of victims is 184. In the T.B. (VI. 2) also we find a similar list of victims but the number is 179. Thirty names of dieties and victims are in the same order in both the texts. Afterwards, there is variation in the names of dieties and victims and also in their order. The T. B. uses the verb *ālabhate* (slaughter) for these victims but the same does not occur in the V.S. See also S.B.E., vol. XLIV, pt. V, pp. 407-8 fn.
3. S.B.E., loc. cit.
4. According to Weber these four victims, as they occur among the previously enumerated victims, are additions in the Saṁhitā which have not been recognised by the Brāhmaṇa (S.B.E., vol. XLIV, pt. V, p. 408 fn.)
5. द्वितीयोच्छ्रिते शेषान्। Kāt. Śr. XXI. 10.
6. Kāt. Śr. XXI. 7-9.
7. तेषामष्टाचत्वारिंशतं मध्यम उपाकरोति Sat. Śr. XIV. 6.6. एकादशैकादशेतरेष्ववशिष्टान्मध्यमेऽष्टौवा Ibid, XIV. 6.7.
8. Ibid, XIV. 6.7.
9. Ś.B. XIII. 6.2.12; नियुक्तान् ब्रह्माऽभिष्टौति होतृवदनुवाकेन "सहस्रशीर्षेति"। Kāt. Śr. XXI. 11; Sat. Śr. XIV. 6.8.

At this stage the human victims, according to the Ś.B.[1], have the fire carried round them but they are not yet slaughtered. Then we find the intervention of a divine voice saying[2] 'Puruṣa, do not perform the *saṁsthāpana* ceremony with these victims : if thou wert to do so, man would eat man'.

Commenting on '*mā santiṣṭhipo*,' occurring in this passage, Harisvāmin[3] states that before *paryagnikaraṇa* the human victims are neither slaughtered nor taken in the northern direction. This shows the significance of *paryagnikaraṇa*. The commentator says that, if these rites are performed before *paryagnikaraṇa*, man will start eating man in this world. The object of taking some human victims in the northern direction is clear from the Āp. Śr. and Sat. Śr., where it is mentioned that only the *paryagnikṛta* victims are taken in this direction for release. The Ś.B.[4] further states that only after *paryagnikaraṇa* some victims are released and the remaining 11 victims[5] who are non-*paryagnikṛta* are slaughtered.

Eggeling[6] translates the term '*saṁsthāpayati*' here as 'concludes'. Elsewhere he takes it to mean 'to consummate'[6a] and 'to slay'[6b]. But following the ritualistic tradition the commentator rightly interprets it as actual slaughter.[7] Sāyaṇa[7a] also explains the term '*saṁsthāpanam*' as '*sañjñapanam*' or slaughter.

Of all the ritual texts, Kāt. Śr. is not very clear about the ceremony of the carrying of fire, release of victims and the final *saṁsthāpana*. It has to be interpreted in the light of the Ś.B. and the corresponding texts like the Āp. Śr.

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1. तत्पर्य्यग्निकृताः पशवो बभूवुरसंज्ञप्ताः, Ś.B. XIII. 6. 2. 12.
2. अथ हैनम्वागभ्युवाद। पुरुष मा सन्तिष्ठिपो यदि संस्थापयिष्यसि पुरुषऽएव पुरुषमत्स्यतीति तान्पर्य्यग्निकृतानेवोदसृजत्तद्देवत्याऽआहुतीरजुहोत्ताभिस्ता देवताऽअप्रीणात्ताऽएनम्प्रीताऽअप्रीणन्त्सव्वः कामैः। Ibid, XIII. 6. 2. 13.
3. एतान् पुरुषपशून् मा संतिष्ठिपः उदङ्ननियनादिकान्यङ्गानि एषां मा कृथा इत्यर्थः। यदि संस्थापयिष्यसि। ततः शेषभक्षानुकारेण लोकेऽपि पुरुषः पुरुषं भक्षयिष्यति। तच्चायुक्तमित्यभिप्रायः। Hariswāmin on Ś.B. XIII. 6.2.13.
4. तान्पर्य्यग्निकृतानेवोदसृजत्तद्देवत्याऽआहुतीरजुहोत्ताभिस्ता. . . Ś.B. XIII. 6.2.13.
5. ऐकादशिनैः संस्थापयति। Ibid, XIII. 6.2.15.
6. S.B.E., vol. XLIV. pt. V. p. 411.

6a. Ś.B. XIII. 6.2.13.

6b. Ibid, Vol. XXVI. pt. II p. 178

7. ऐकादशिनैः पशुभिः यथाप्रकृति पाशुकं कर्म समापयतीत्यनुवादः। तत्र पर्य्यग्निकरणान्तः अयं विध्यभावात्। Hariswamin on Ś.B. XIII. 6. 2. 15.

7a. Sāyaṇa in Ś.B. III. 7. 2. 8.

and Sat. Śr.[1] of the Kṛṣṇa School. According to the Kāt. Śr.[2], 48 victims are tied to the *agniṣṭha yūpa* and 11 victims to each of the remaining 10 *yūpas*. The remaining victims are then to be added to the second *yūpa*. Then Sūtra XXI, 12 refers to the release of *Brāhmaṇādīn*; this expression may refer either to the *Brāhmaṇādīn*[3] (XXI. 7) or to victims also mentioned in sūtras XXI. 8 and 9, except the rest (*seṣam*) who are added to the second post and appear to have been slaughtered (XXI. 10). The number of victims to be sacrificed will be 136 or 26 only according to either of the two alternative interpretations respectively.

In the Āp. Śr.[4] and Sat. Śr.[5] of the Kṛṣṇa Yajurveda School, we find almost the same procedure as in the Ś.B. It has been laid down that the *paryagnikṛta* victims should be taken in the northern direction and released. Then after some rites, the remaining human victims are slaughtered. According to Āpastamba, those slaughtered are two sets of eleven. But Satyāṣāḍha follows the Ś.B. here, and lays down that they are one set of eleven only.

The conclusion, therefore, emerges that, according to the Ś.B., Āp. Śr. and Sat. Śr., the *paryagnikṛta* victims or those round whom the fire is carried are released and the rest are actually slaughtered. This is further confirmed by the procedure followed in the Aśvamedha, the rites of which, as already pointed out, correspond to those of the Puruṣamedha. In the Aśvamedha,[6] the *paryagnikṛta* animals are released and then takes place the slaughter of the horse. Thus it may safely be concluded that after the release of the *paryagnikṛta* victims, the slaughter of the other remaining human victims must have formed part of the Puruṣamedha procedure. This has obviously been generally overlooked.

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1. Infra, fns. 4, 5.
2. नियोजनकालेऽष्टाचत्वारिंशतमाद्यानग्निष्ठे। Kāt. Śr. XXI. 8. इतरेष्वेकादशैकादश, Ibid, XXI. 9. द्वितीयोच्छ्रिते शेषान्। Ibid, XXI. 10; कपिञ्जलादिवदुत्सृजन्ति ब्राह्मणादीन्। Ibid, XXI. 12.
3. ऐकादशिनानुपाकृत्य ब्राह्मणादींश्च। Ibid, XXI. 7.
4. पर्यग्निकृतानुदीचो नीत्वोत्सृज्याज्येन तद्देवता आहुतीर्हुत्वा द्वयैरैकादशिनैः संस्थापयति (न्ति)। Āp. Śr. XX. 24. 11.
5. पर्यग्निकृतान्पुरुषानुदीचो नीत्वोत्सृज्याऽऽज्येन तद्देवता आहुतीर्हुत्वाऽथैकादशिनीः संस्थापयन्ति। Sat. Śr. XIV. 6.9.
6. पर्यग्निकृतानारण्यानुत्सृजन्ति। Āp. Śr. XX. 17.5. श्यामूलेन क्षौमेणा वाश्वं संज्ञपयन्ति। Ibid, XX. 17.9. पर्यग्निकृतान्ग्राम्यान्पशूनालभन्ते प्रारण्यानुत्सृजन्ति।...अश्वं संज्ञपयन्ति। Sat. Śr. XIV. 3. 55. 56.

*Sacrifice of Eleven Barren Cows*

The last round of the sacrifice consists of the immolation of 11 barren cows[1] sacred to Mitra-Varuṇa, the Viśvedevāḥ and Bṛhaspati, according to the Ś.B. and Sat. Śr., and to Prajāpati or Viśvedevāḥ, according to Āpastamba who[2] further lays down that the *abhiṣeka* in the Puruṣamedha is like that in the Aśvamedha.

*The Main Rites according to Śāṅkhāyana and Vaitāna, furnishing an undisputed Evidence of Human Sacrifice*

According to Śāṅkhāyana,[3] a man, a *gomṛga* and a hornless he-goat are sacrificed for Prajāpati. Twenty-five victims are brought to each of the twenty-five sacrificial posts, who are to be sacrificed for the seasonal deities.[4]

The *Āprī* verses, 'Agni, death etc'., are pronounced on the adorned human victim.[5] A garment of *kuśa* grass, a cloth of *tripā* bark and a red garment of silk threads are spread out for the victim.[6] When he is slaughtered, the Udgātṛ sings the *sāman* addressed to Yama[7] and the Hotṛ recites the Puruṣa Nārāyaṇa hymn.[8] Then the sacrificer is healed by means of four hymns.[9] The healing ceremony becomes necessary, for the sacrificer has caused man-slaughter in course of the sacrifice.[10]

The first consort of the sacrificer lies down near the slaughtered victim.[11]

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1. एकादश व्वशाऽअनूबन्ध्याऽआलभते, Ś.B. XIII. 6.2.16; Āp. Śr. XX. 24.15; Sat. Śr. XIV. 6.12.
2. एतस्मिन्नेवाहन्यश्वमेधवदभिषेकः। Āp. Śr. XX. 24. 14.
3. पुरुषो गोमृगोऽजस्तूपरस्ते प्राजापत्याः। Śāṅk. Śr. XVI. 12.14.
4. पशवश्च पञ्चविंशतिःपञ्चविंशतिः पञ्चविंशतये चातुर्मास्य देवताभ्यः। Ibid, XVI. 12.14.
5. अग्निर्मृत्युरित्याप्रियः। Ibid, XVI. 12.18.
6. अथ पुरुषायोपस्तृणन्ति कौशं तार्ष्यमारुणमांशवमिति। Ibid, XVI. 12. 20.
7. संज्ञप्तं यामेन साम्नोद्गातोपतिष्ठते। Ibid, XVI. 12.21.
8. पुरुषेण नारायणेन होता। Ibid, XVI. 13.1; for the hymns see ibid, XVI. 13.4.
9. अथ यजमानं भिषज्यन्ति। Ibid, XVI. 13.3.
10. Eggeling thinks that the healing ceremony was with a view to heal the bodily infirmities of the sacrificer (S.B.E., vol. XLIV, pt. V, introduction, p. xlv). But this view is obviously untenable.
11. संज्ञप्ताय महिषीमुपनिपातयन्ति। Ibid, XVI. 13. 7.

Both of them are covered with the upper garment.[1] Then certain rites are performed and some verses recited. This rite is analogous to the sacrificer's wife lying with the slaughtered horse in the Aśvamedha.[2] Theological discussion takes place on the *sadas*.[3] After certain other ceremonies, there is a sacrifice of ten victims, fettered to a forked stake, and of another twelve for the seasons.[4] According to Vaitāna[5], the third day of the sacrifice is a Mahāvrata and the human victim is bound to the post[6]; some verses are recited on this occasion. With different verses the victim is taken to the slaughtering place in the shed of Śāmitra and then made to lie down.[7] When the victim has been slaughtered, the Puruṣa Nārāyaṇa hymn is recited.[8] After this, certain verses are recited with a view to heal the sacrificer.[9] Other rites are the same as in the Aśvamedha.

### *The Dakṣiṇā*

According to the Ś.B.[10], the land, other property and the people of eastern, southern, western and northern quarters of the kingdom are given to Hotṛ, Brahmā, Adhvaryu and Udgātṛ priests respectively. The Hotṛkas share this along with them. The land and property of the Brāhmaṇas are excluded. If a Brāhmaṇa performs this sacrifice, he should bestow all his property in order to obtain its complete merit.

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1. तावधीवासेन संप्रोणुवते। Śānk. Śr. XVI. 13.8.
2. महिषीमश्वायोपनिपादयन्त्यथैनावधिवासेन सम्प्रोर्ण्णुवन्ति. ....व्वृषाव्वाजो रेतोधा रेतो दधात्विति मिथुनस्यैव सर्व्वत्वाय। Ś.B. XIII. 5. 2. 2.
3. सदसि ब्रह्मवद्यम्। Ibid, XVI. 13.16.

   The Sadas is an essential part of the altar of the Soma sacrifices. (S.B.E. vol. XLIII, pt. IV, pp. 241 ff,). It is a shed or tent facing the east with its long side measuring 18 or 21 or 24 or 27 cubits (Ś.B. III. 6.1.1 ff,). The breadth should be 6 or 10 cubits or one half of that of the long side. (Ibid, p. 141 fn.). It is situated at the back of the altar (S.B.E. vol. XXVI, pt. II, p. 3 fn. 2, pp. 127, 140, 141, 146.). The priests and the Brāhmaṇas take their seats on the Sadas (S.B.E. vol. XXVI, pt. II, p. 148 fn. 4; ibid, p. 141; III. 6. 1.1).
4. दशपशुर्विशाखयूपः द्वादश द्वादशर्तुपशवः। Ibid, XVI. 14. 19-20.
5. महाव्रतं तृतीयम्। Vait. Śr. VI. 37. 22.
6. यूपे वध्यमानम्। Ibid, VI. 37. 23.
7. हरिणीभिः शामित्रे ह्रियमाणम्। स्योनास्मै भवेति द्वाभ्यां निपात्यमानम्। Ibid, VI. 37. 24, 25.
8. सहस्रबाहुयामसारस्वत्यैः संज्ञप्तम्। Ibid, VI. 37. 26.
9. अथ भैषज्याय यजमानमक्षीभ्यां ते मुञ्चामि त्वोत देवा यस्यास्तेऽपेत एतु वात आ वात्विति मेथने ब्रह्मा। Ibid, VI. 38.1.
10. मध्यम्प्रति राष्ट्रस्य यदन्यद्भूमेश्च ब्राह्मणस्य च वित्तात्सपुरुषम्प्राचीदिग्घोतुर्द्दक्षिणा ब्रह्मणः प्रतीच्युध्वर्य्योरुदीच्यद्गातुस्तदेव होतृकाऽअन्वाभक्ताः। Ś.B. XIII. 6. 2. 18. अथ यदि ब्राह्मणो यजेत सर्व्ववेदसन्दध्यात्सर्व्वम्मै... सर्व्वस्याप्त्यै...। Ibid, XIII. 6. 2. 19.

The Śrauta Sūtras of Kātyāyana,[1] Āpastamba[2] and Satyāṣāḍha[3] lay down the same procedure and emphasise that the *dakṣiṇā* should be like that in the Aśvamedha.

### *Life of the Sacrificer after the Performance of the Puruṣamedha*

The Ś.B.[4] lays down that, after performing this sacrifice, the sacrificer takes up the two fires within his ownself (inhales the heat or smoke emitted by the fires), worships the Sun with the Uttara-Nārāyaṇa hymn and betakes himself to the forest without looking round. If he wishes to live in the village, he should take up again the two fires, the churning sticks, worship the Sun with the hymn mentioned above and dwell at his home. Afterwards also, he should offer the sacrifices which he can afford. The Kāt. Śr.,[5] Āp.Śr.[6] and Sat. Śr.[7] also lay down similar rules.

### *Evidence of the Puruṣamedha in Buddhist Literature*

In Buddhist literature also there are significant notices of the Puruṣamedha. The earliest reference to it is found in the Suttanipāta[8] which is considered to be one of the oldest texts of Buddhism. Some of its portions had become prominent even in the time of Buddha, as it is quoted about a Bhikṣu that he was able to recite the last two chapters of it in the presence of the Lord in one

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1. सपुरुषमश्वमेधवद्दक्षिणा सर्वस्वं ब्राह्मणस्य। Kāt. Śr. XXI. 14, 15.
2. दक्षिणाकाले यदब्राह्मणानां दिक्षु वित्तं तत्सभूमि ददाति यथाश्वमेधे। ब्राह्मणो यजमानः सर्ववेदसम्। Āp. Śr. XX. 24. 12, 13.
3. दक्षिणाकाले मध्यमं प्रतिराष्ट्रस्य यदन्यद्ब्राह्मणाद्दिक्षु वित्ताद्भूमेः . . . । यथाऽश्वमेधे ब्राह्मणो यजमानः सर्ववेदसं दद्यात्। Śat. Śr. XIV. 6.10,11.
4. उत्तरनारायणेनादित्यमुपस्थायानपेक्षमाणोऽरण्यमभिप्रेयात्तदेव मनुष्येभ्यस्तिरोभवति यद्यु ग्रामे व्विवत्सेदरण्योरग्नी समारोह्योत्तरनारायणेनैवादित्यमुपस्थाय गृहेषु प्रत्यवस्येदथ तान्यज्ञक्रतुनाहरेत, Ś.B. XIII. 6. 2. 20.
5. Kāt. Śr. XXI. 17, 18.
6. त्रैधातवीययोदवसाय पृथगरणीष्वग्नीन्समारोप्योत्तरनारायणेनाऽऽदित्यमुपस्थायारण्यमवतिष्ठेत। ग्रामं वा प्रविश्य त्रैधातवीययायजेत। Āp. Śr. XX. 24. 16,17.
7. त्रैधातवीयोदवसानीया तयेष्ट्वा पृथगरणीष्वग्नीन्समारोह्योत्तरनारायणेनाऽऽदित्यमुपस्थाय गृहेषु प्रत्यवस्येद्यानभिप्राज्ञु-यात्तान्यज्ञक्रतूनारभेत। संतिष्ठते पुरुषमेधः। Sat. Śr. XIV. 6. 13,14.
8. ततो च राजा सञ्ञत्तो ब्राह्मणेहि रथेसभो। अस्समेधं पुरिसमेधं सम्मापासं वाचपेय्यं निरग्गळं। एते यागे यजित्वान ब्राह्मणानं अदा धनं॥ Sn., vol. 1, p. 53.

sitting.[1] The antiquity of this text is further borne out by the fact that even the commentary on certain portions of the Suttanipāta was regarded as Buddha-vacana and was included in the Tripiṭaka itself.[2] At any rate, according to the Buddhist tradition, the entire extant Pāli Tripiṭaka was in existence in 29 B.C.[3]

*The Suttanipāta*

In the Brāhmaṇadhammika Sutta,[4] mentioned in the second chapter, i.e. Cullavagga, Buddha contrasts the ancient Brahmanical ideals with the Brahmanical duties and practices of his own time. The holy Brāhmaṇas of ancient times exercised self-control and, having abandoned the pleasures of the five senses, they led a life for their own welfare. They had no cattle, neither gold nor corn. Only learning was wealth and corn for them. People from various provinces and countries paid homage to them. Those Brāhmaṇas were inviolable. They offered sacrifices which did not involve the killing of cows and did not hanker after huge *dakṣiṇās*. In course of time, however, they were tempted by worldly wealth, adorned women of kings, houses divided into compartments etc. They composed hymns for sacrifice, approached king Okkāka and prevailed upon him to perform sacrifices. Then the king performed Assamedha, Purisamedha, Sammāpāsa, Vācapeyya and Niraggaḷa sacrifices. In *dakṣiṇā* he gave wealth to these Brāhmaṇas, which consisted of cattle, money, garments, adorned women etc. This *gāthā* is also incorporated in the Saṁyutta Nikāya,[5] Aṅguttara Nikāya[6] and Itivuttaka.[7]

*Buddhaghoṣa*

In the Paramatthajotikā commentary, Buddhaghoṣa explains the connotation of the Aśvamedha and Puruṣamedha.

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1. एवं भन्ते ति खो आयस्मा सोणो भगवतो पटिस्सुत्वा सोळस अट्ठकवग्गिकानि सब्बानेव सरेन अभणि। Kh. N., vol. I, p. 132; also Pande, G.C., S.O.B, p. 53.
2. Cullaniddesa and Mahāniddesa.
3. Parivāra, p. vii.
4. Sn., p. 50.
5. S.N., vol. I, p. 76.
6. A.N., vol. II, p. 42.
7. Ibid, p. 21.

He defines Aśvamedha[1] as that sacrifice in which horse is slaughtered. It has two main ancillary rites and requires 21 *yūpas* for its performance. The *dakṣiṇā* consists of the entire property excluding the land and people. Similarly, the Puruṣamedha[2] is that sacrifice in which men are slayed as victims. It has four other component parts. The *dakṣiṇā* consists of the entire wealth, as in the case of the Aśvamedha, and also land. In his Sāratthappakāsinī[3] commentary on the Saṁyutta Nikāya, Buddhaghoṣa repeats the same comments with the additional information that the term '*medhanti*' meant '*vadhenti*' which indicates that actual human slaughter was performed in the Puruṣamedha.

The facts, in the commentary of Buddhaghoṣa, reveal that he had a clear, correct and first-hand information of the ritual. His definitions of the Aśvamedha and Puruṣamedha are the same as in the ritual texts. The reference to 21 *yūpas*, in connection with the Aśvamedha, occurs in the commentary as well as in various ritual texts.[4] Here Buddhaghoṣa states that the Aśvamedha has two main ancillary rites along with the central ceremony. The Ś.B. also lays down that the main sacrifice lasts for three days.[5] The first Soma-day is the Agniṣṭoma.[6] The second is the Ukthya[7] on which the main ceremony of slaughtering the horse takes place. On the third day, a number of rites are performed and it is described as the Atirātra[8]. So the main ceremony of horse slaughter has the two ancillary ones, performed on the first and the third day.

Similarly, the Puruṣamedha, according to Buddhaghoṣa, has four ancillary ceremonies, evidently besides the central ceremony—one Agniṣṭoma and one Ukthya preceding the Atirātra and another Agniṣṭoma and Ukthya following it. The four components of the Puruṣamedha along with the central Atirātra

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1. अस्समेत्थ मेधन्ती ति अस्समेधो, द्वीहि परियञ्ञेहि यजितब्बस्स एकवीसतियूपस्स ठपेत्वा भूमिञ्च पुरिसे च अवसेससब्बविभवदक्खिणस्स यञ्ञस्सेतं अधिवचनं। Paramatthajotikā commentary on the Sn. vol. II, p. 321.
2. पुरिसमेत्थ मेधन्ती ति पुरिसमेधो, चतूहि परियञ्ञेहि यजितब्बस्स सद्धिं भूमिया अस्समेधे वुत्तविभवदक्खिणस्स यञ्ञस्सेतं अधिवचनं। Ibid.
3. Sāratthappakāsinī, vol. I, p. 145.
4. एकविंशतिर्यूपा, Śāṅk. Śr. XVI. 3. 1.
5. Ś.B. XIII. 4. 1. 1.
6. Ś.B. XIII. 2.1. 1 ff.
7. Ś.B. XIII. 2.2.1 ff.
8. Ś.B. XIII. 5. 3. 9.

are the same as in the ritual texts. Thus Buddhaghoṣa shows a correct insight into the structural arrangements of these sacrifices. Regarding the *dakṣiṇā* in these sacrifices also, we find that the facts in his commentary are in conformity with those in the ritual texts.[1] Thus the *dakṣiṇā* of the Puruṣamedha consists of land and all other property as prescribed in the Āp. Śr.[2]

*The Evidence of the Khaṇḍahāla Jātaka*[3]

This Jātaka relates that Devadatta, the opponent of the Tathāgata, was the Brāhmaṇa priest of king Ekarāja of Bārāṇasī, also called Pupphavatī, in his previous birth and his name was Khaṇḍahāla. He succeeded in persuading the king to offer a sacrifice involving the slaughter of his sons, other persons and animals as victims. On being asked about the way to heaven by the king, the priest replied that it could be won by the excellent merits obtained by sacrificing those who deserved not to be slain and by giving enormous gifts in that sacrifice. He further explained to the king that the latter should offer as of sacrificial victims, his sons, queens, merchants, the choicest bulls, the steeds etc.

The commentary, while explaining this passage, further adds that princes, princesses, wives of the king, bulls, horses, elephants, each four in number, were required to be sacrificed in an enclosure. Their heads were to be severed with a sword and pieces of gold were to be thrust into their mouths (throats).

The king, intending to perform this sacrifice with a desire to obtain heaven, summoned his four sons, Candakumāra, Candasūra, Bhaddasena and Vemānikasūra. He went out of the city and ordered a sacrificial pit to be dug and then levelled, according to the ancient Brahmanical procedure, so that the rite might not be disturbed. The persons, seized for the sacrifice, were his four sons, mentioned above, his four daughters, Upaseni, Kokilā, Muditā and Nandā; his four queens, Vijayā, Erāvati, Kesini and Sunandā; and four merchants, Puṇṇamukha, Bhaddiya, Siṅgāla and Vaddha, who were weeping aloud and protesting. Among the animals, there were four elephants, Abhayaṅkara, Rājagiri, Accyuta and Varuṇadanta; four horses, Kesi, Surāmukha, Puṇṇaka

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1. सद्धिं भूमिया अस्समेधे वुत्तविभव etc. see fn. 2, supra, p. 201.
2. वित्तं तत्सभूमि ददाति यथाश्वमेधे। Āp.Śr. XX. 24.12.
3. Jātaka. vol. VI, pp. 131-157.

and Vindaka, and four bulls, Yūthapati, Anoja, Nisobha and Gavampati. Besides, a number of other animals and birds were also seized for the sacrifice which was to be performed in the morning.

Amidst loud wailings and pathetic cries, the victims were carried through the eastern gate of the city to the sacrificial ground. After the preliminary rites, the priest Khaṇḍahāla placed the prince Candakumāra on the altar with his neck bent forward. While the priest was on the point of severing the neck of the prince with a sword, the King of gods appeared in person with a blazing mass of fire and disturbed the sacrifice.

In the Vessantara Jātaka[1], we find reference to the sacrifice, known as '*pantha sakuna*', which an escort of king Vessantara intended to perform with the Brāhmaṇa jūjaka as a victim by cutting off his head and making the offering of his flesh, marrow and heart. The term *sakuna* means bird and thus it may be possible that this rite, involving the offering of the various parts of the human victim, may have some relation with either the Śyenaciti or the Śyenayāga. One is also reminded here of offering to *pathyā-svasti*,[2] in connection with the Puruṣamedha sacrifice.

In these two Jātakas the preparation and levelling of the sacrificial ground, the construction of the sacrificial enclosure, the sacrifice of human and animal victims, the thrusting of gold-chips into their mouths and the facts regarding the sacrificial fees, agree closely with those in the ritual texts. They occur in the *gāthā* portion of the two stories, whose antiquity goes back to the early days of Buddhism.

### *Evidence of the Puruṣamedha in Jain Literature*

In a Jain text[3] there is an interesting account of a Brāhmaṇa preist Mahe-

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1. तस्स त्याहं न दस्सामि जीवितं इध ब्राह्मण। अयं हि ते मया नुन्नो सरो पास्सति लोहितं॥ सिरो ते वज्झयित्वान हृदयं छेत्वा सबन्धनं। पन्थसकुनं यजिस्सामि तुय्हं मंसेन ब्राह्मण॥ तुय्हं मंसेन मेदेन मत्थकेन च ब्राह्मण। अहुति पग्गहेस्सामि छेत्वान हृदयं तव॥ तम्मे सुयिट्ठं सुहुतं तुय्हं मंसेन ब्राह्मण। न च त्वं राजपुत्तस्स भरियं पुत्ते च नेस्ससीति॥ Jātaka, vol. VI, p. 527.
2. Supra, p. 192 fn. 12.
3. Vip. S.I. 5. quoted in the Schools and Sects in Jain Literature by Amulyachandra Sen, p. 15.

ssaradatta who used to perform Homa (Soma) sacrifice (obviously Puruṣamedha) by seizing one boy belonging to each of the four castes for the enhancement of the realm and power of his patron king Jiyasattu. The number of victims was even increased on special occasions. Thus whenever the king was attacked by an enemy, the priest caused 800 boys from each caste to be seized and sacrificed. There appears to be some exaggeration, but the fact of the performance of Puruṣamedha is evident here.

*Reference to the Puruṣamedha in the non-ritualistic Hindu Texts*

In the Sambhavaparva of the Mahābhārata[1], we find a detailed description of the Puru Vaṁśa, starting from Dakṣa, and a reference to the performance of ten thousand Puruṣamedha sacrifices by Ayutanāyī, a scion of that Vaṁśa, who was so called because he had performed *ayuta* or ten thousand human sacrifices.

In the Vāyu Purāṇa[2], the Aśvamedha and Naramedha are compared to the waist and belly respectively of the ascetic sage Vyāsa. In the ninth Skandha of the Bhāgavata Purāṇa[3] also, there is an account of the performance of a Puruṣamedha by king Hariścandra who purchased Śunaḥśepa, the second son of Ajīgarta, as a sacrificial victim, and obtained the service of the priests, Viśvāmitra, Jamadagni, Vaśiṣṭha and Ayāsya as Hotā, Adhvaryu, Brahmā and Udgātā respectively. The facts regarding the purchase of the victim and the order of the priests agree with those in the ritual texts. In the fifth Skandha of the same Purāṇa, we find the condemnation of this sacrifice. It is stated that men who perform the Puruṣamedha go to hell and there they are cut into slices by the troops of *rākṣasas* who are no other than the victims slayed in the sacrifice.[3] In the Kathāsaritsāgara[4] we find that the *devas* requested the prince of the *dānavas* to offer himself as a victim for the Puruṣamedha. He agreed to it and the gods cut his body into pieces for that sacrifice.

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1. . . .अयुतनायी यः पुरुषमेधानामयुतमानयत् तेनास्यायुतनायित्वं। M.B., Sambhavaparva, XCIV, p. 138.
2. अश्वमेधं कटितटे नरमेधमथोदरे। Vāyu. P., CIV. 84.
3. Bhāg. P. V. 26.31; IX. 7. 20-22.
4. ततः संमन्त्र्य देवास्तमुपेत्यैवं ययाचिरे। देहं पुरुषमेधार्थमस्मभ्यं देहि सर्वथा . . .ततः स खण्डशो देवैः कृतो प्रबलदानवः। Kathāsaritsāgara, XLVI. 3. 238, 239.

*Epigraphic Evidence of the Puruṣamedha*

In the Cho Dinh[1] Rock inscriptions of Champa, belonging to c. 400 A.D., there is evidence of the performance of human sacrifice. Inscription no. 2 refers to a sacrifice offered by Mahārāja Bhadra Varman or one of his descendants with the address, "I shall make thee agreeable to fire, i.e. sacrifice thee." No. 3 refers to the binding of a slave called Śiva to the sacrificial post. The reference to the victim being made agreeable to fire is in accord with the Āprī hymns, '*Agnirmṛtyuḥ*', which are to be recited at the time of the immolation of the human victim.[2] It is significant to remember that the culture of South-East Asia had its root in Indian culture.

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1. (1) नमो देवाय भद्रेश्वरस्वामिपादप्रसादात् अग्नये त्वा जुष्टं करिष्यामि (2) धर्ममहाराजश्रीभद्रेश्वरवर्म्मणो यावच्चन्द्रादित्यौ तावत् पुत्रपौत्रं मोक्ष्यति। (3) पृथिविप्रसादात् कार्म्मसिद्धिरस्तु। शिवो दासो बद्धयते। (Inscription Nos. 2 & 3, Majumdar, R.C. Champa; Ancient Indian Colonies in the Far East, vol. I).
2. Supra, p. 197.

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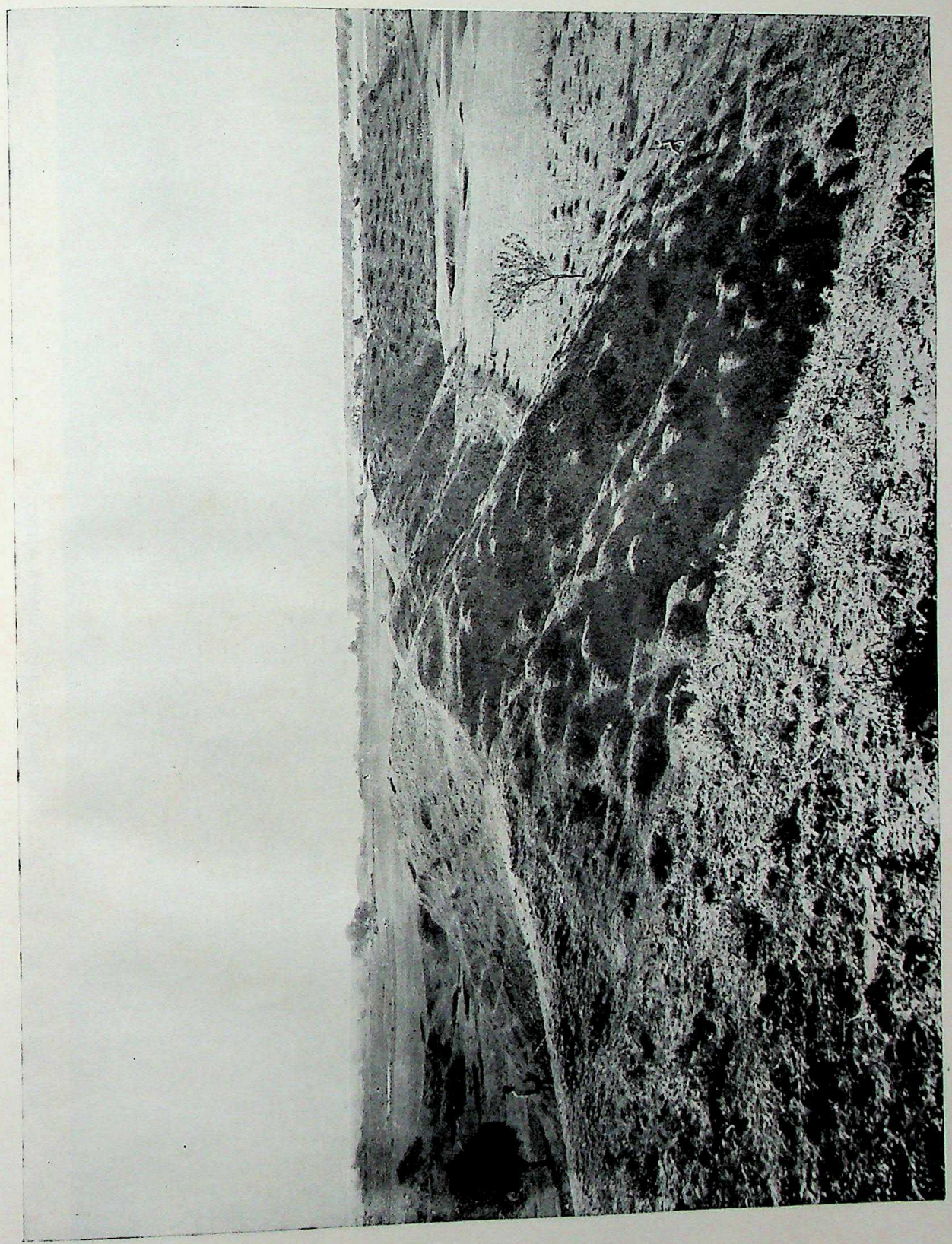
Kauśāmbī from the air

PLATE 6

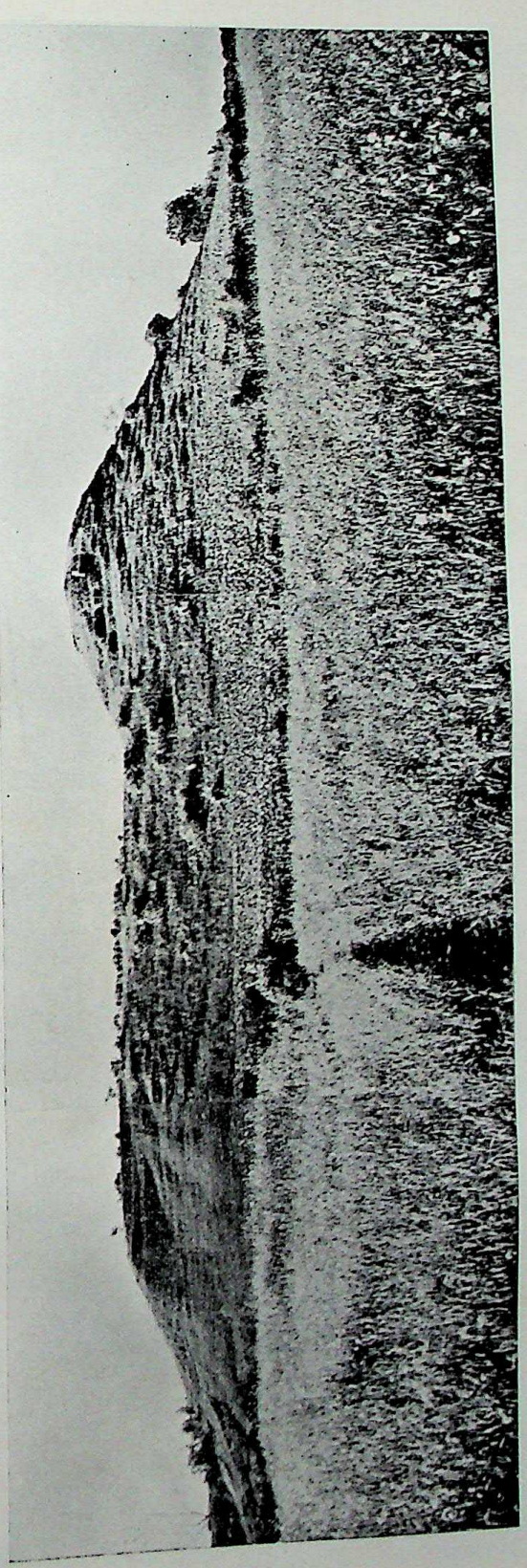
Defences : northern wing



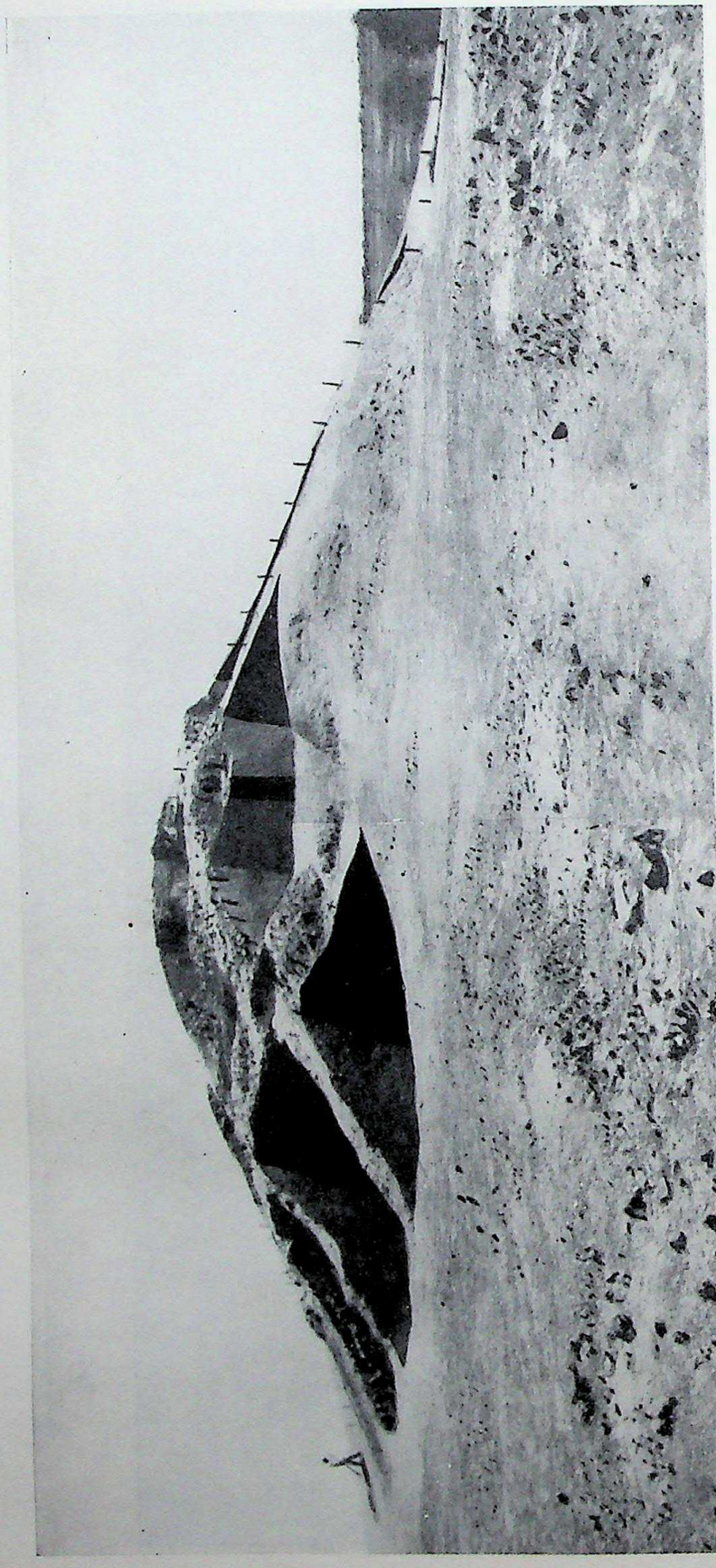
Defences : eastern wing

PLATE 8

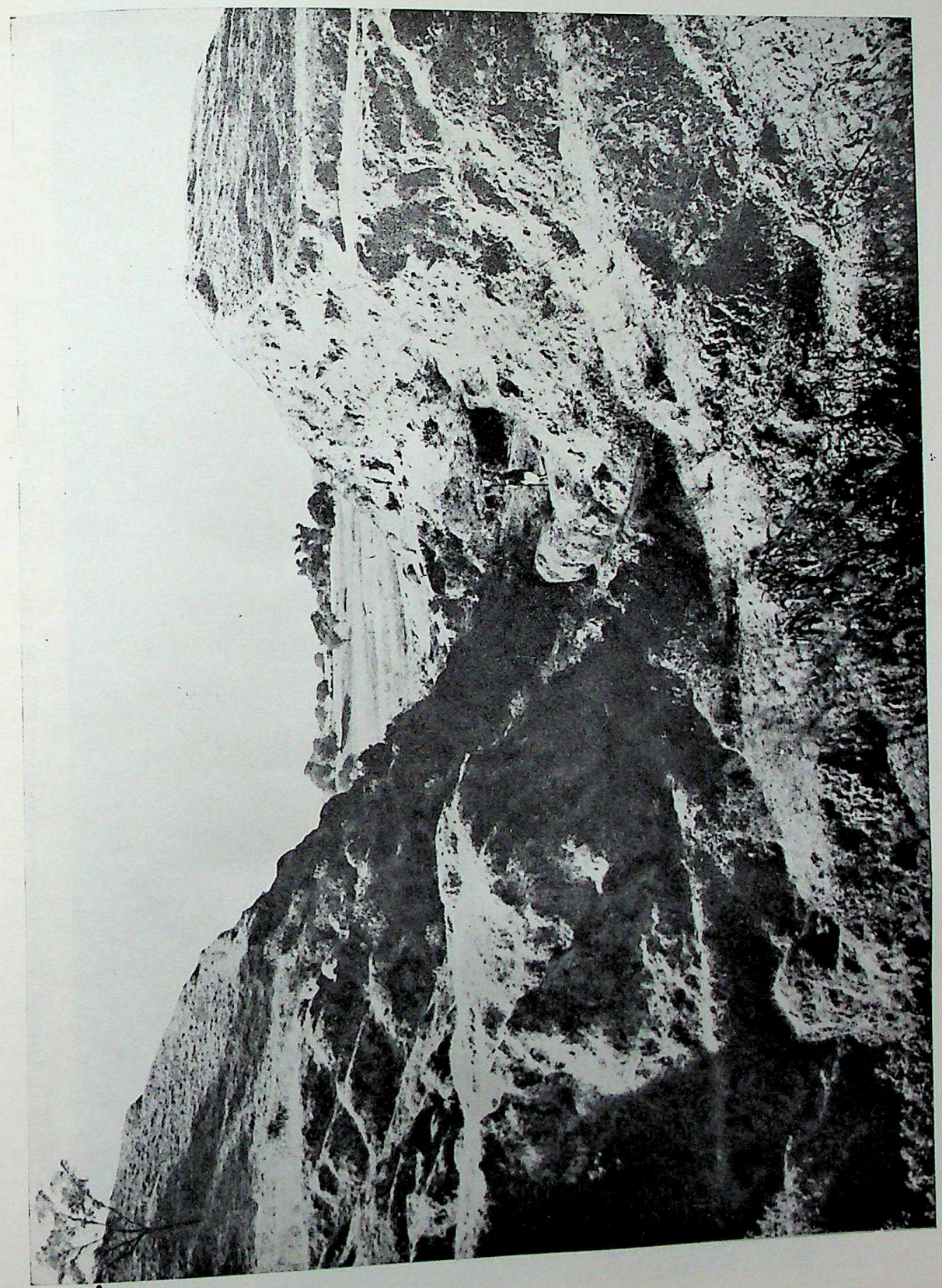
Defences : north-eastern corner



Tower at the north-eastern corner of the defences

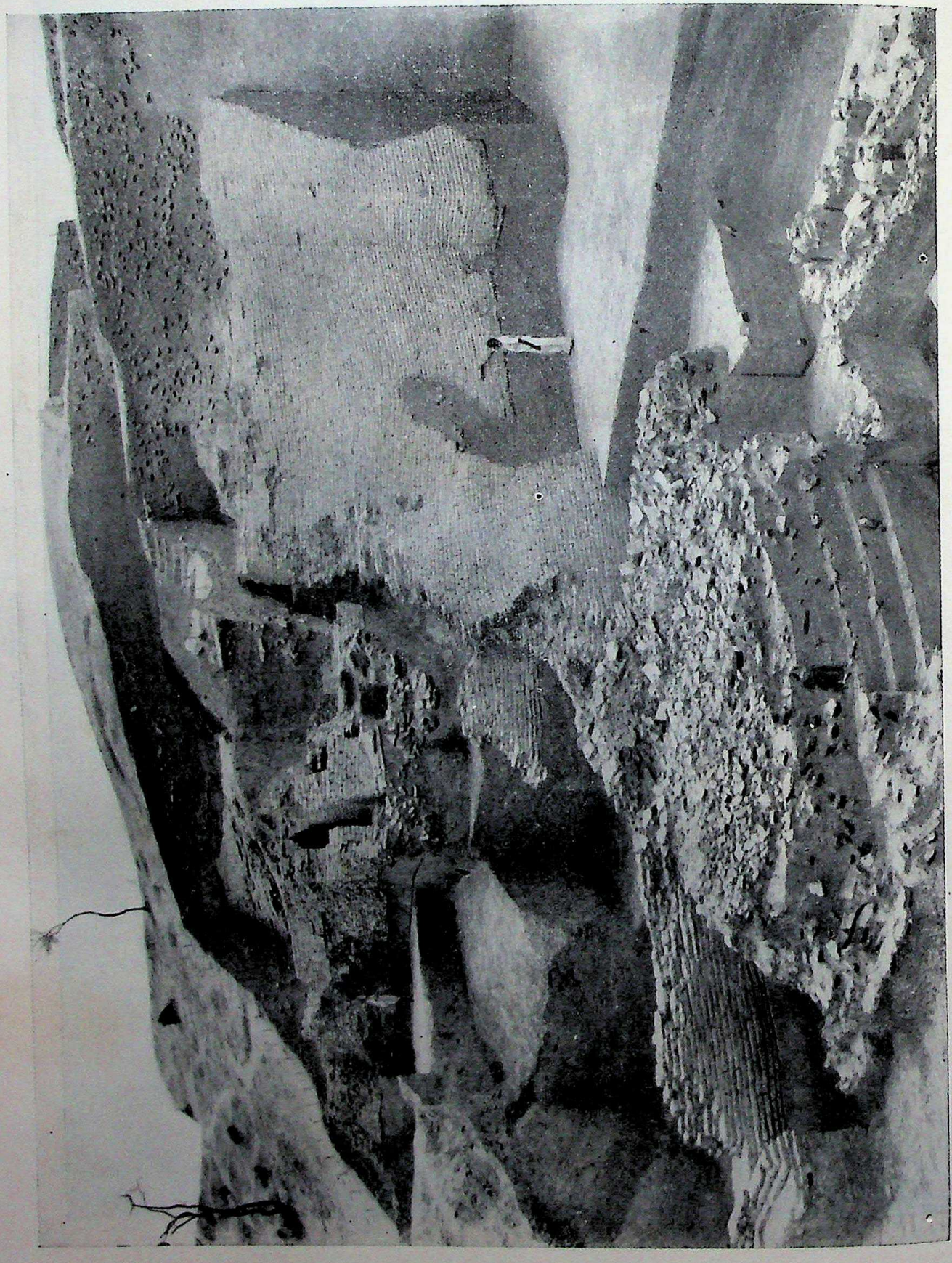


Excavations of the tower at the north-eastern corner of the defences

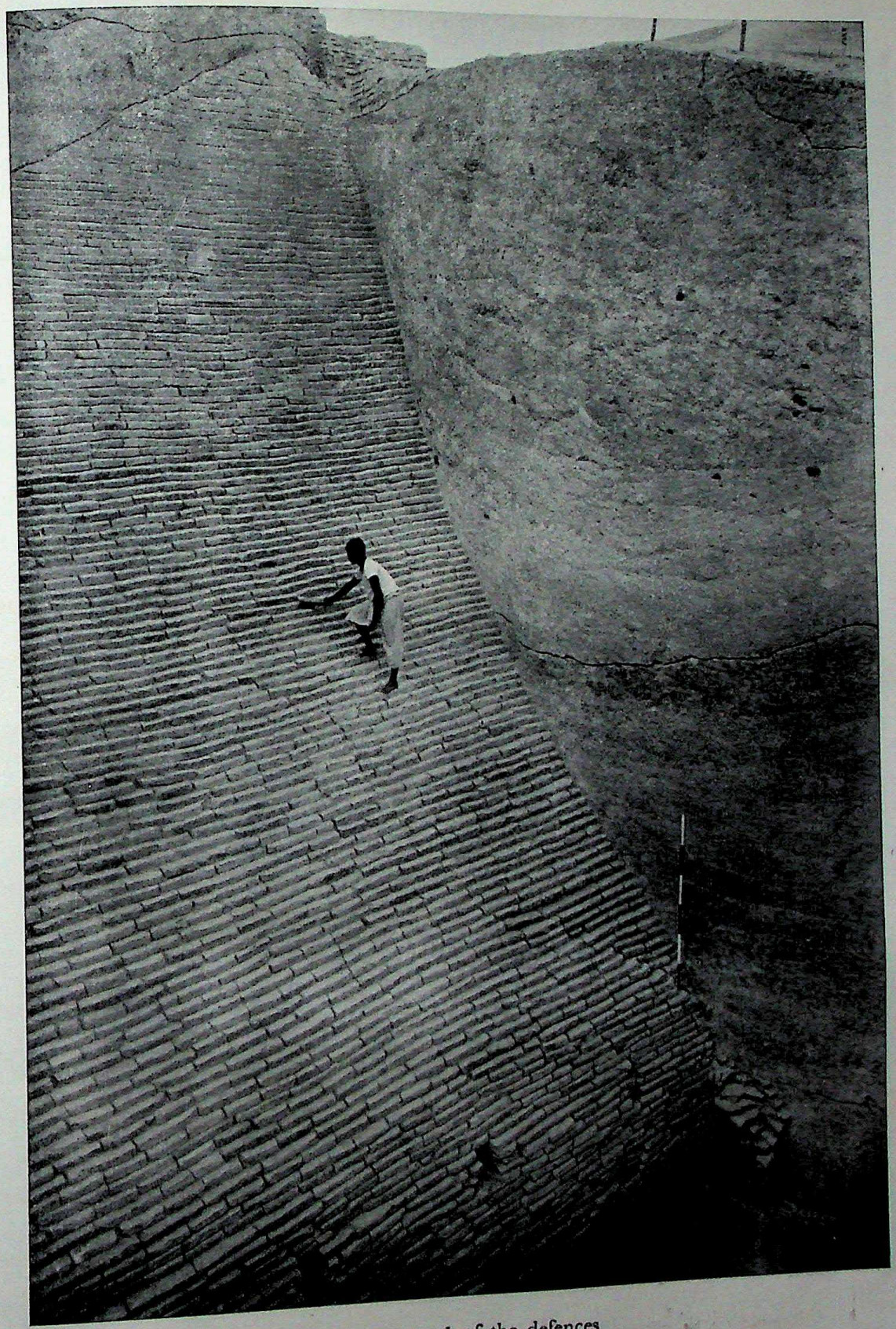


The western gateway

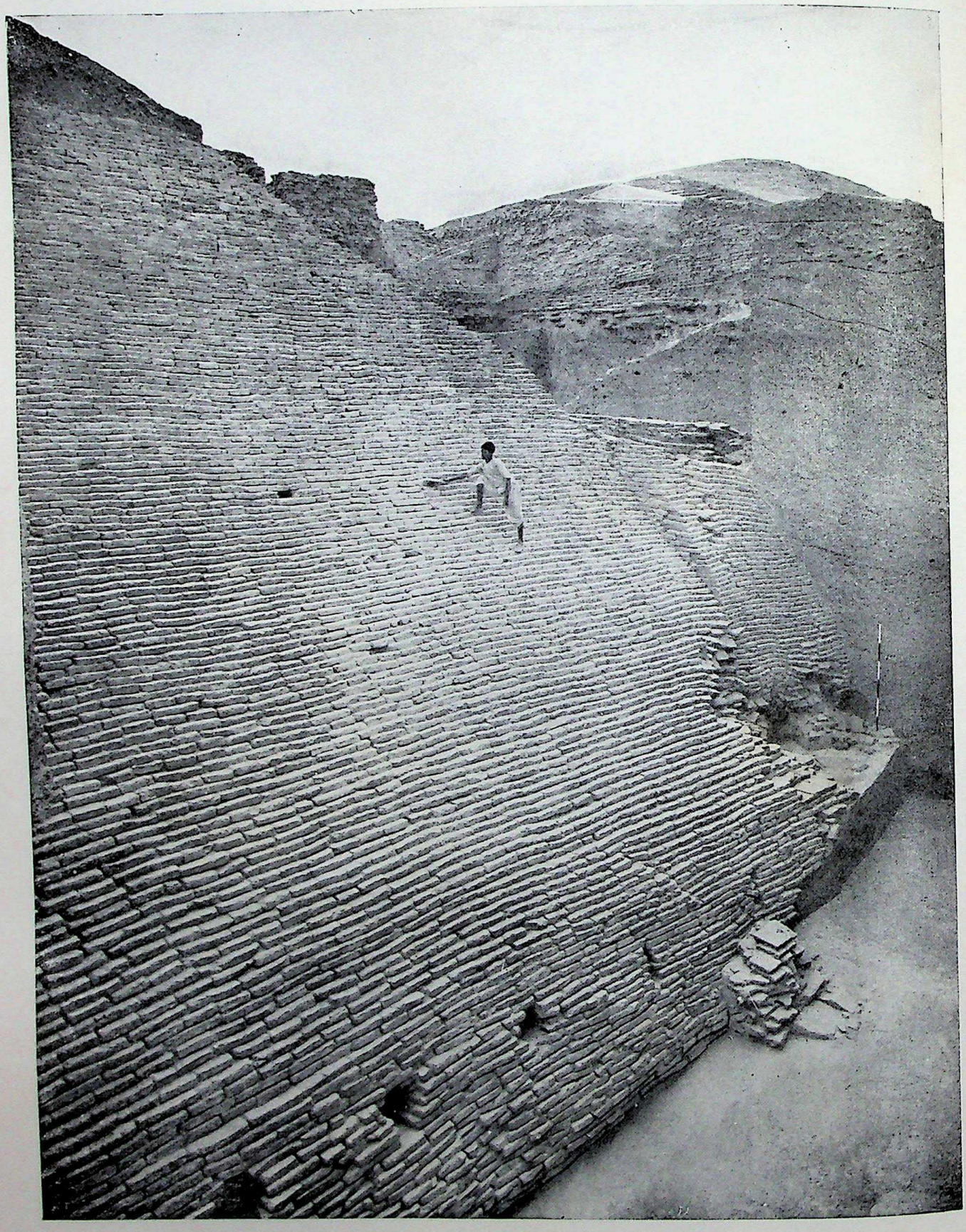
PLATE 12



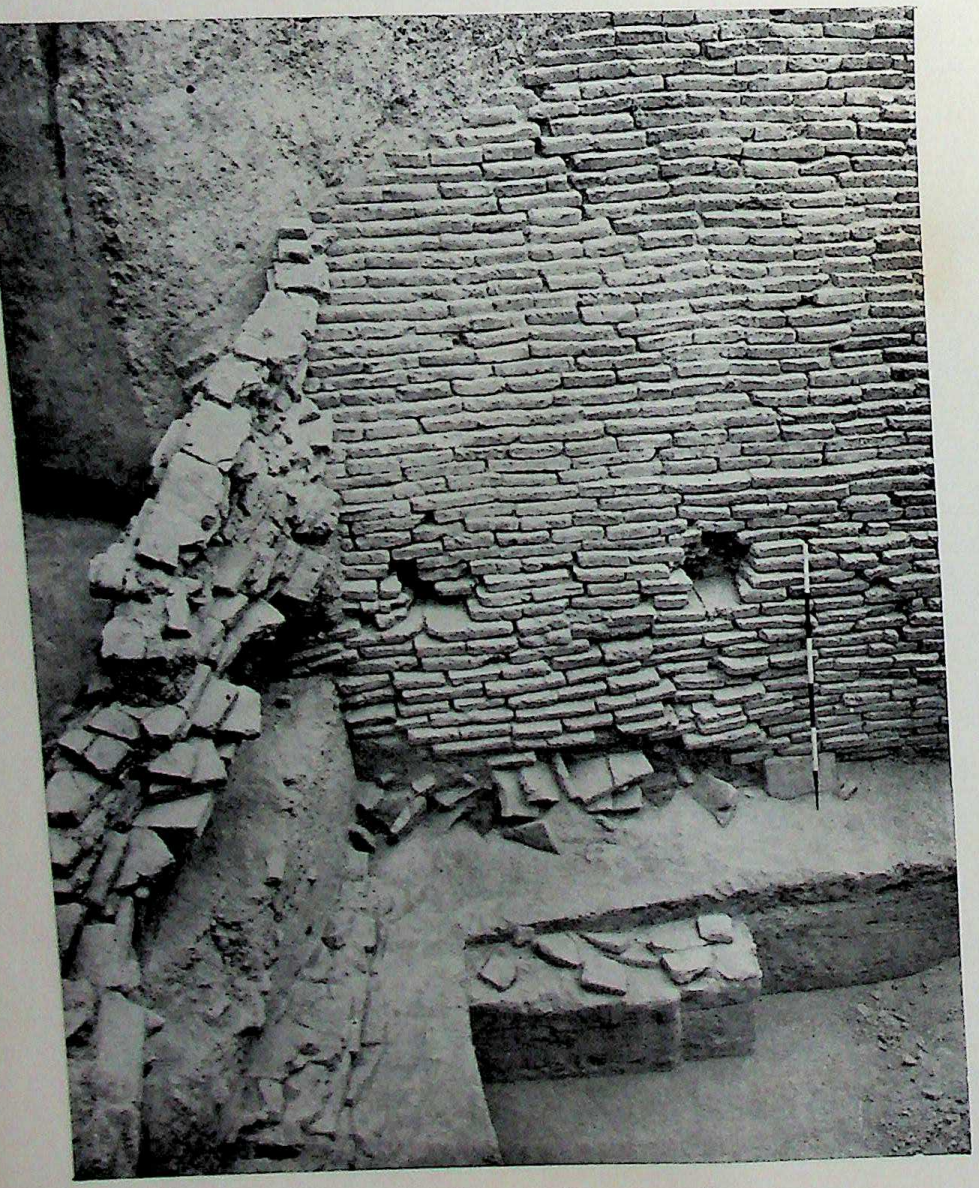
General View of the excavations (1957-59) : the Śyenaciti in the foreground



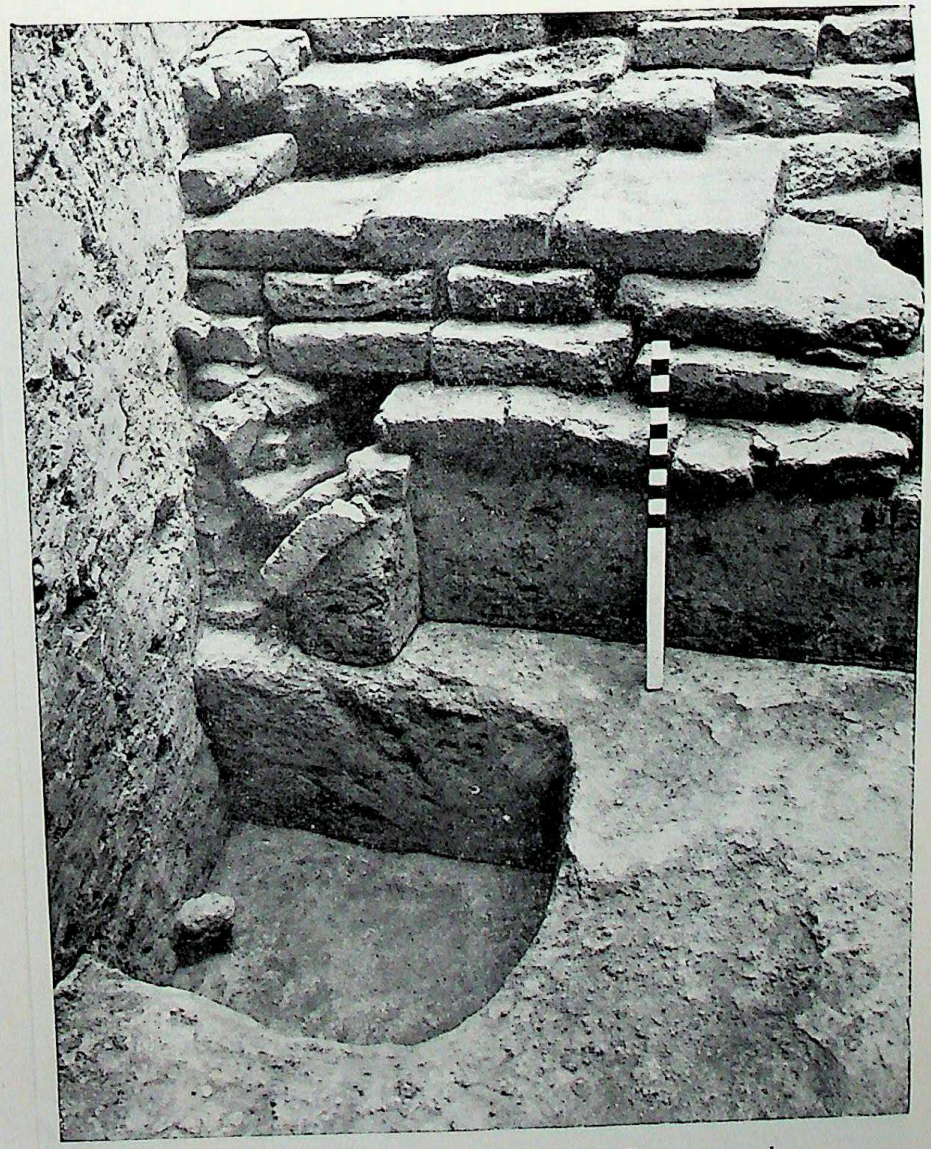
Revetment 1 of the defences



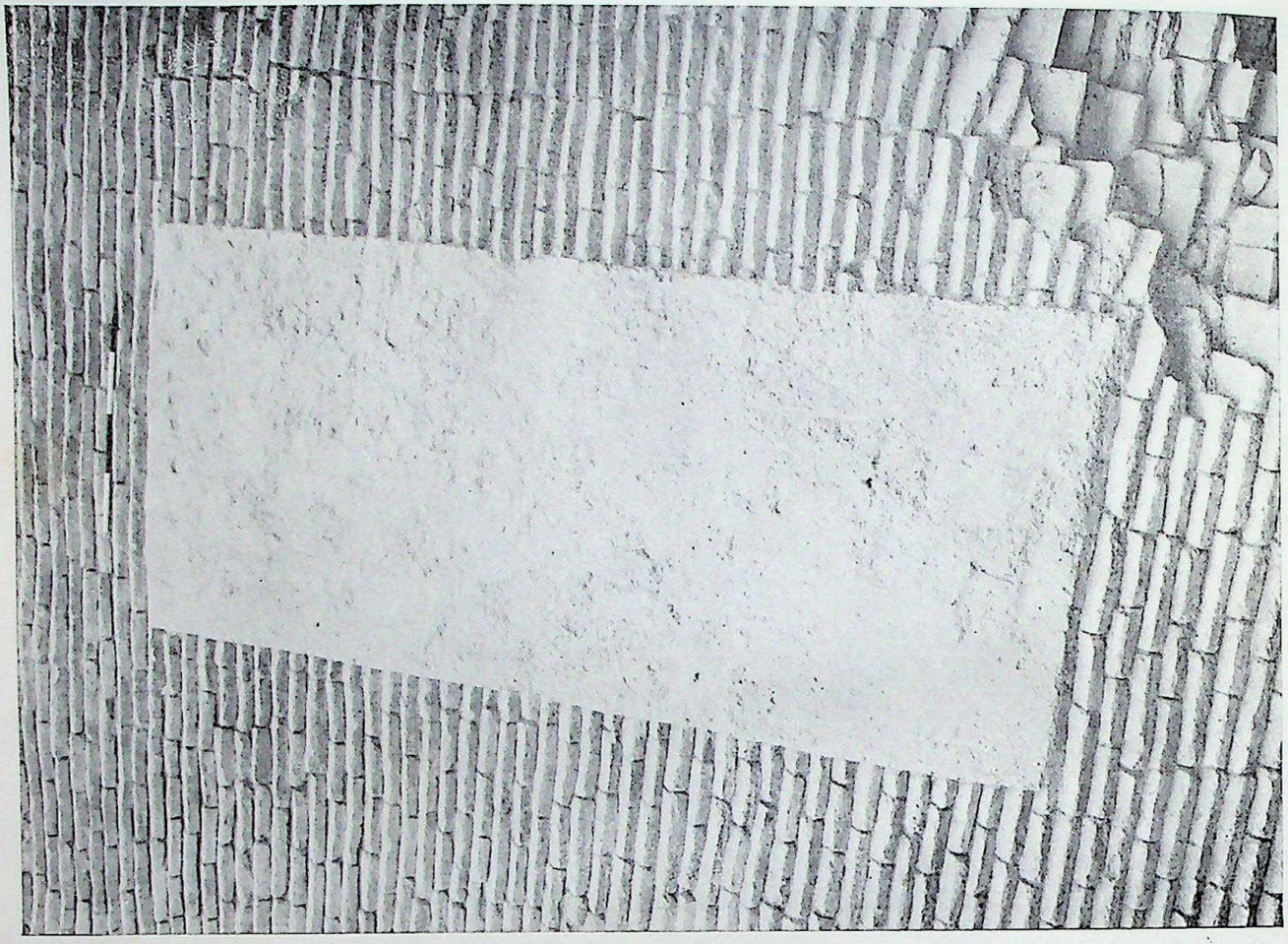
Revetment 1 of the defences, orginal pavement and the blocking of the passage



*A*. Weep-holes in Revetment 1

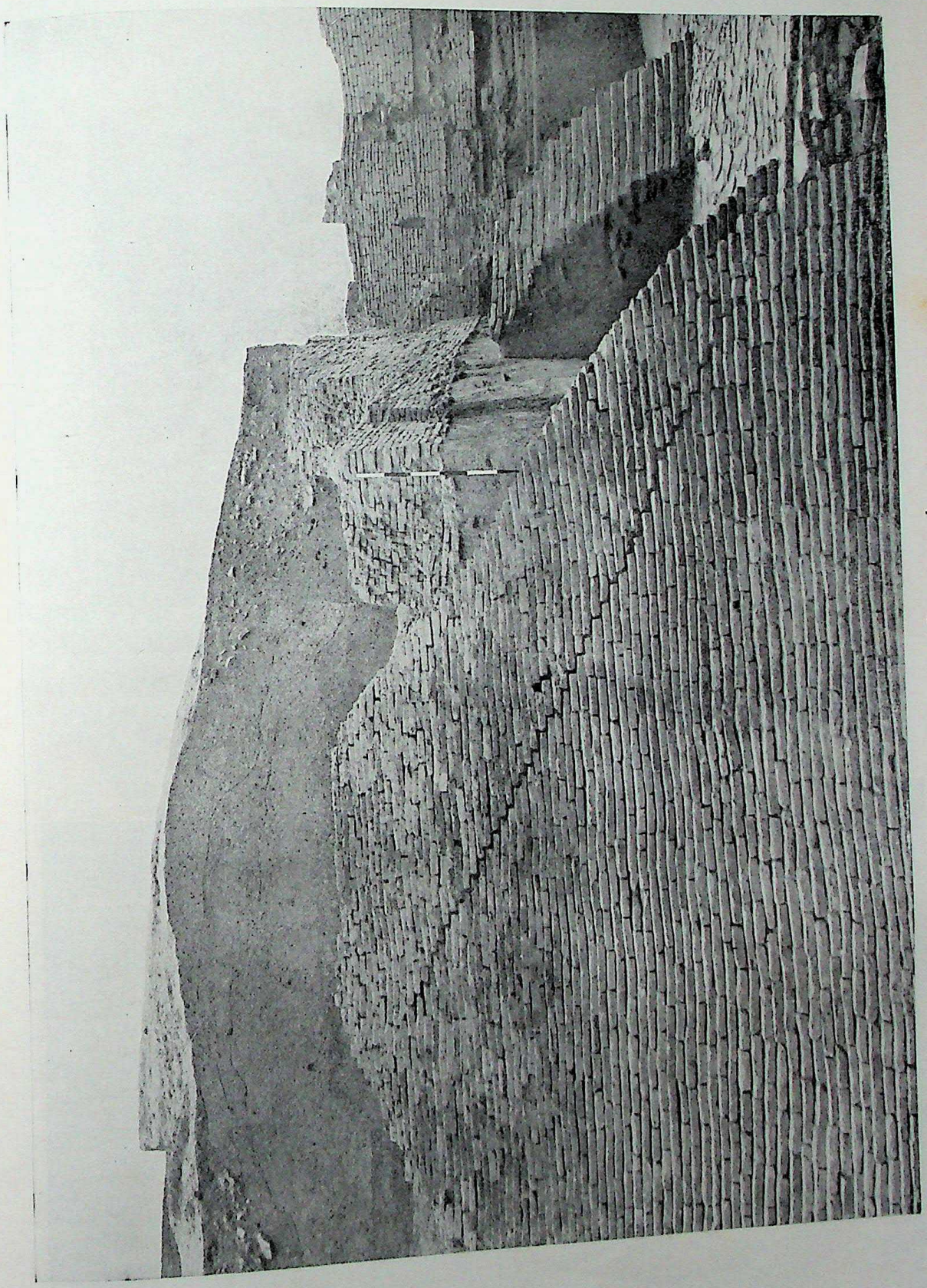


*B*. Unlined pit below weep-hole in Revetment 1



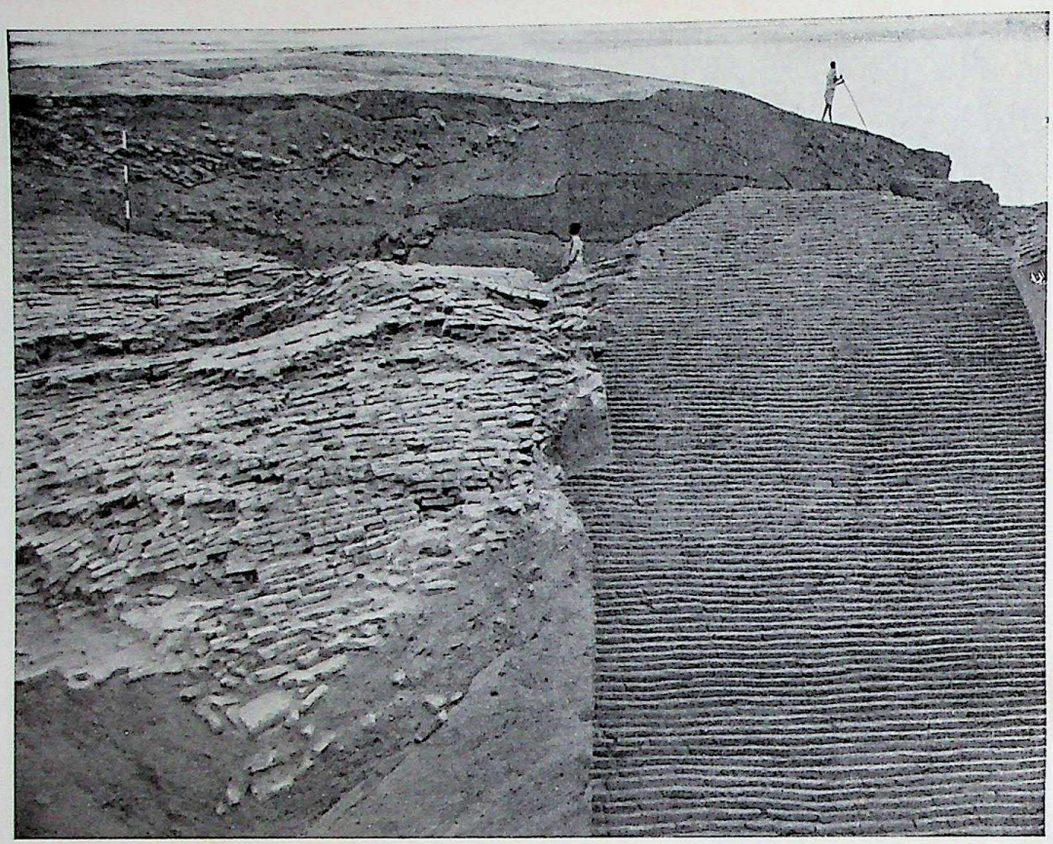
*B* Plaster over Revetment 1

*A*. Original pavement and blocking of the passage through the defences

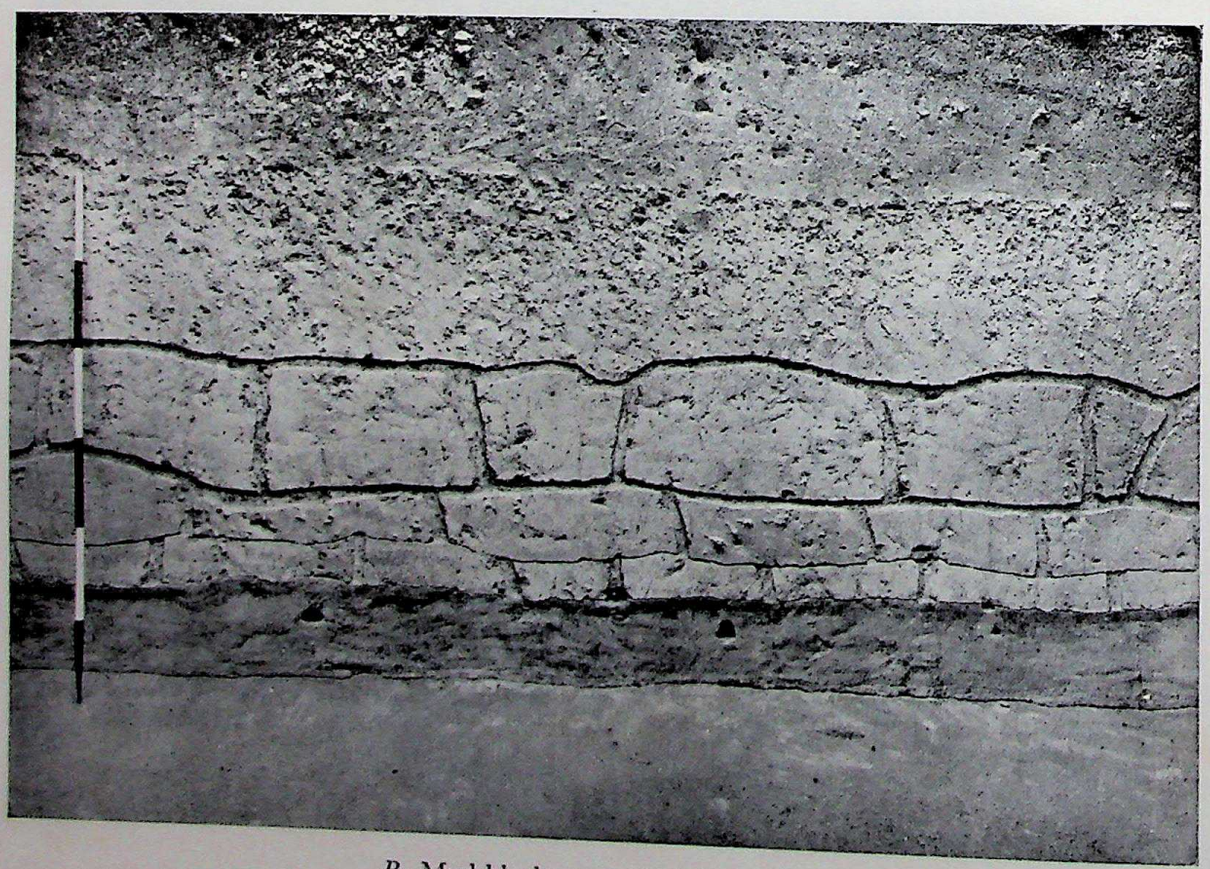


Repair of Revetment 1

PLATE 18

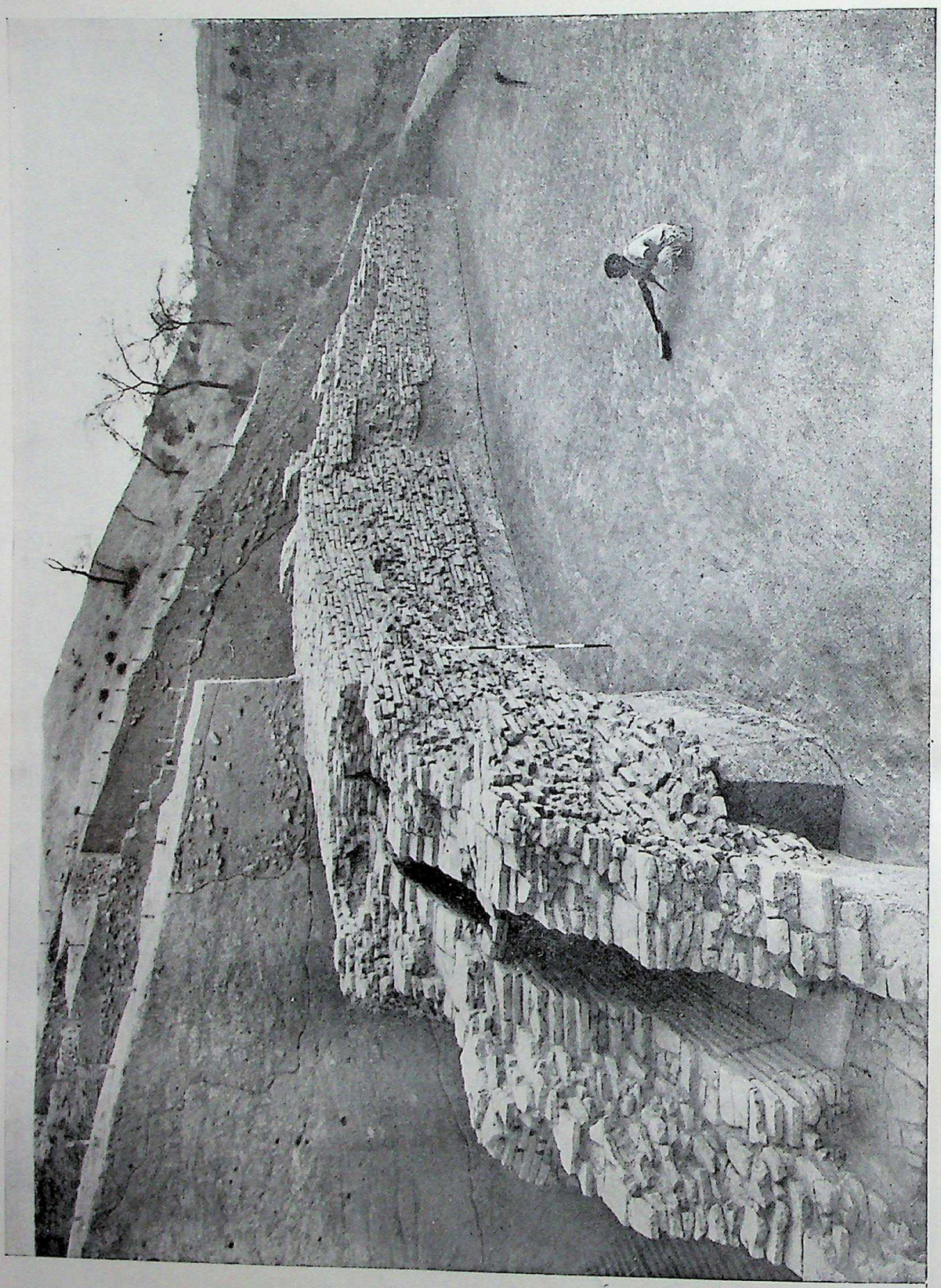


*A.* Revetment 1 and its repair (collapsed)

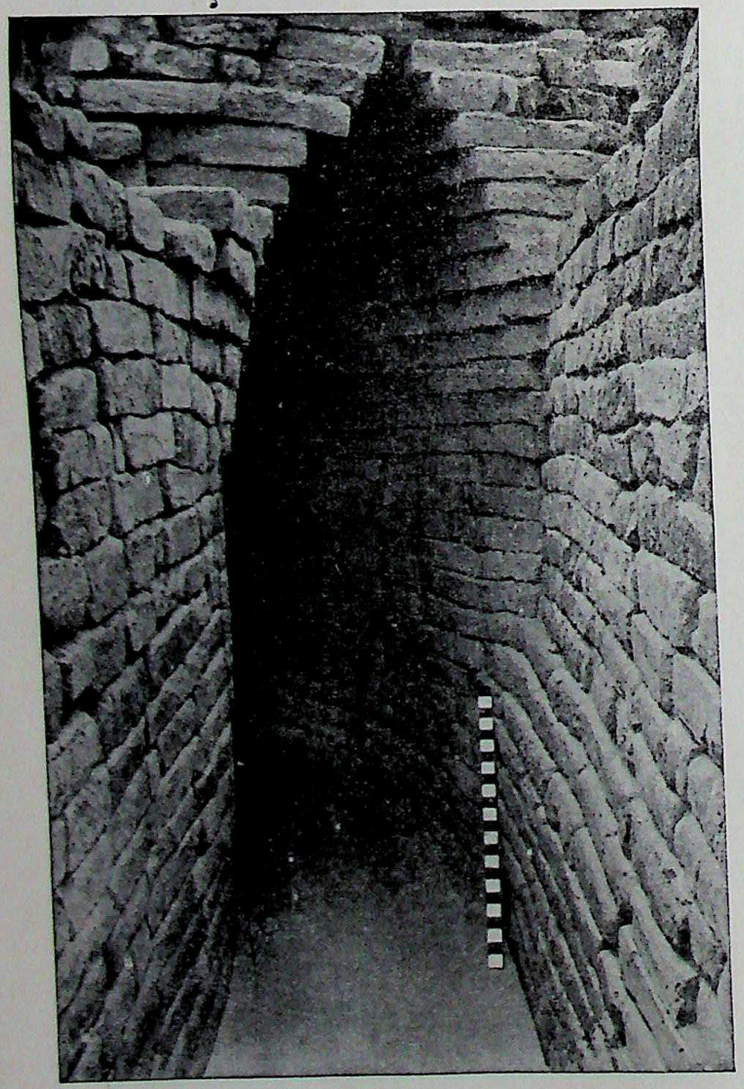


*B.* Mud-blocks over ancient humus

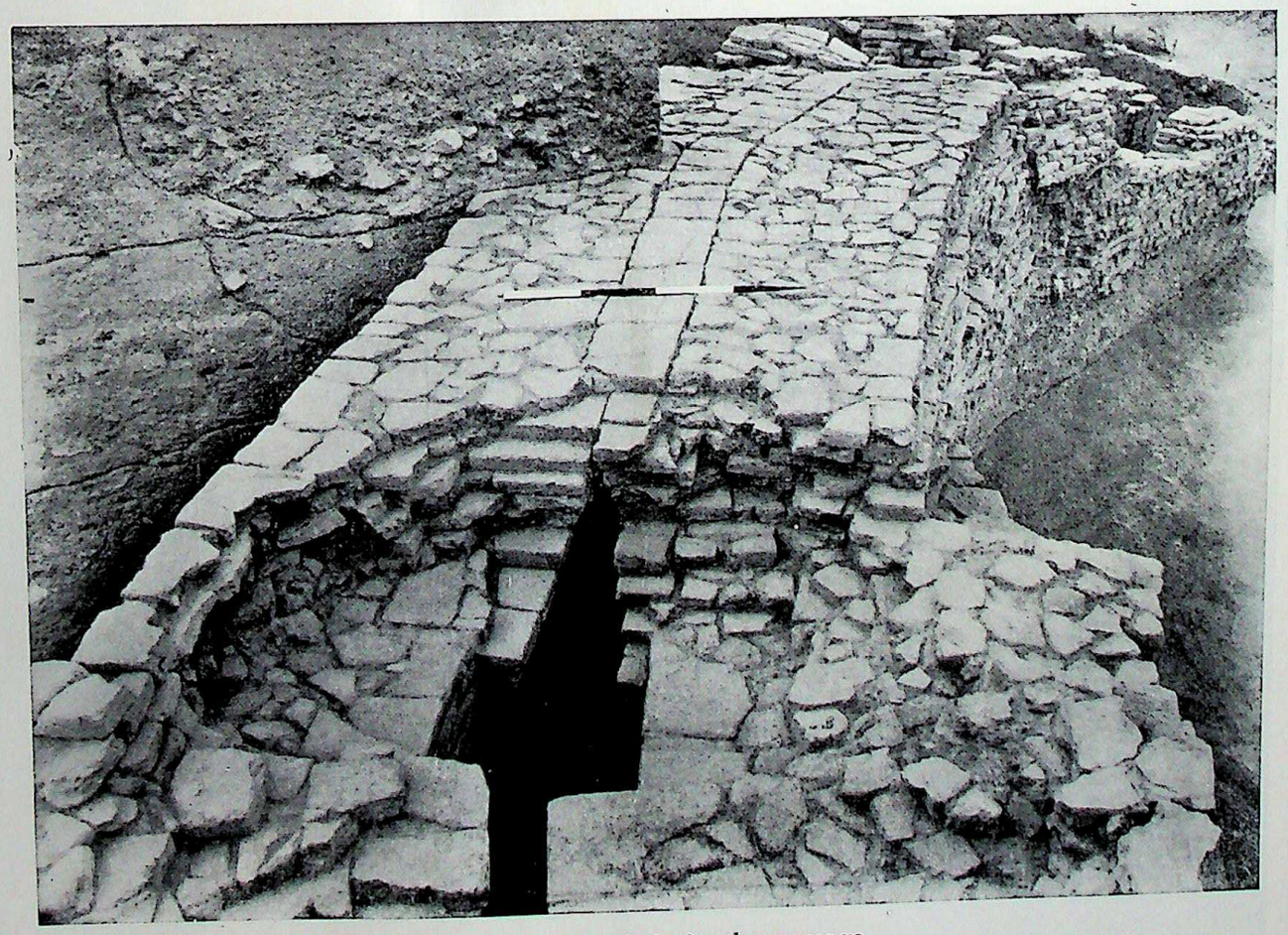
Revetments 2 and 3 of the defences



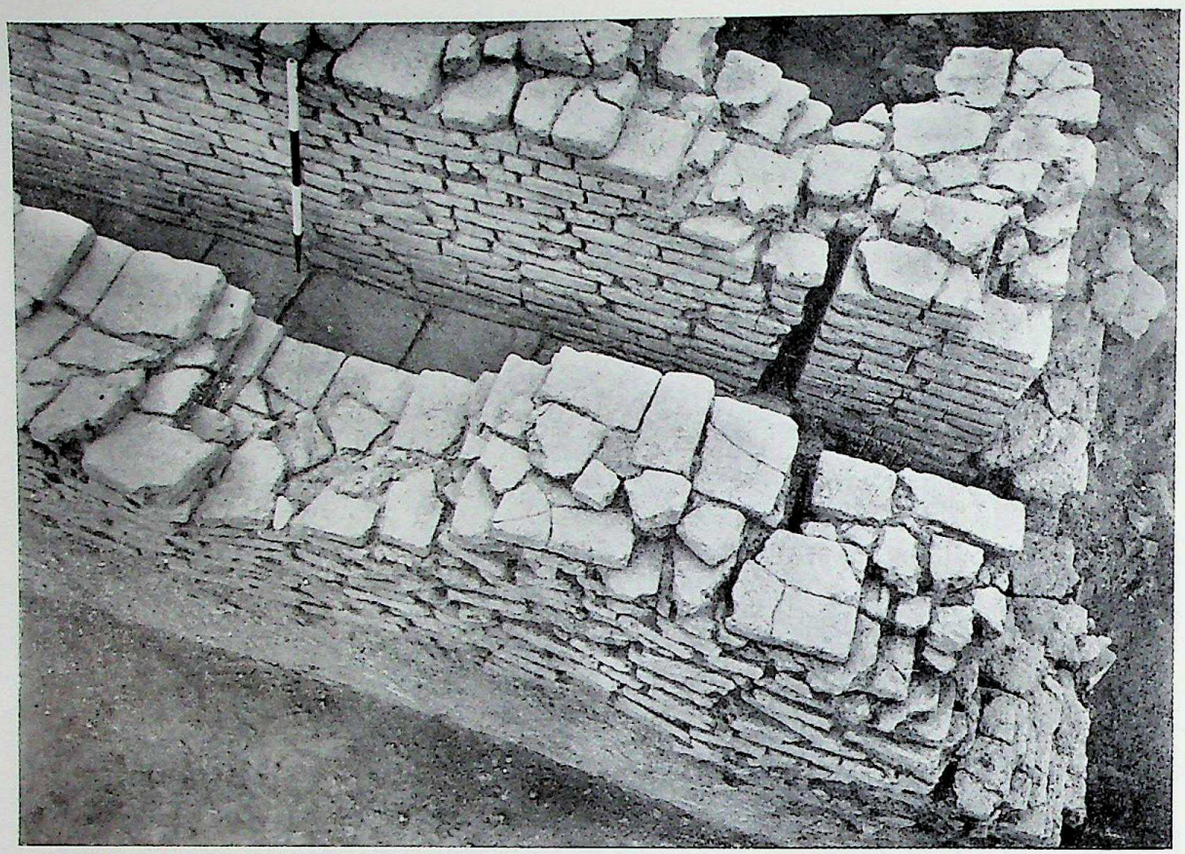
Curved wall and the enclosed passage



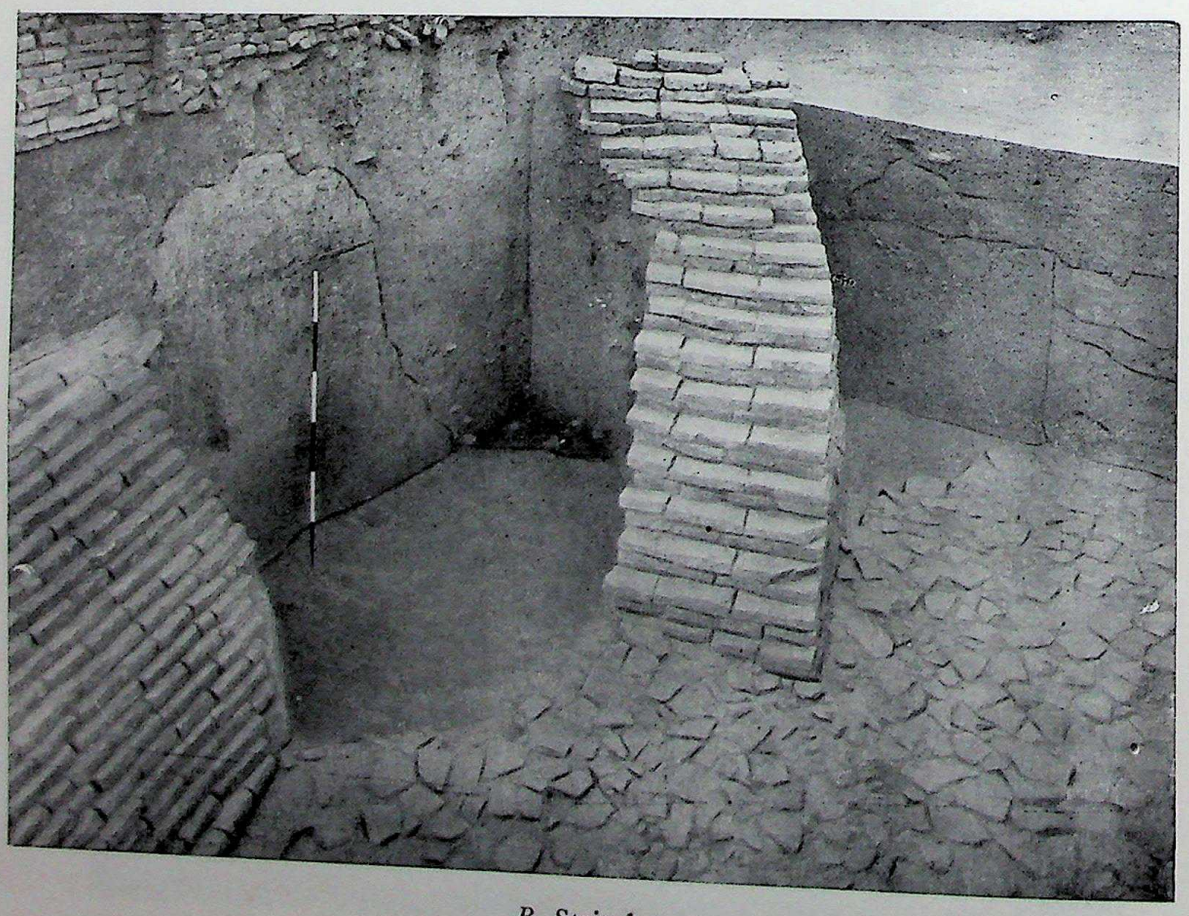
*A.* Corbelled arch of the passage



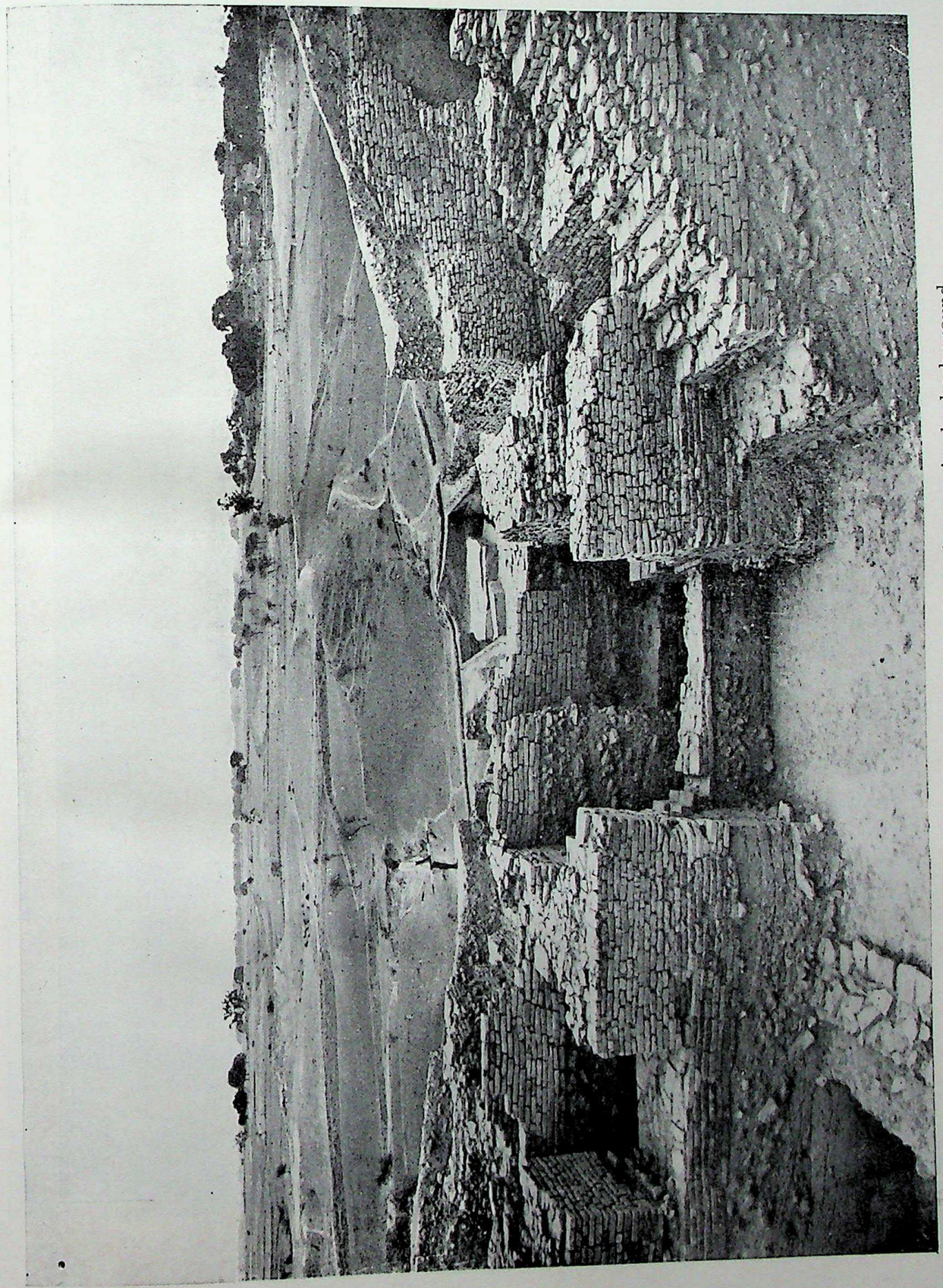
*B.* Man-hole in the passage



*A.* Slits in the walls of the passage

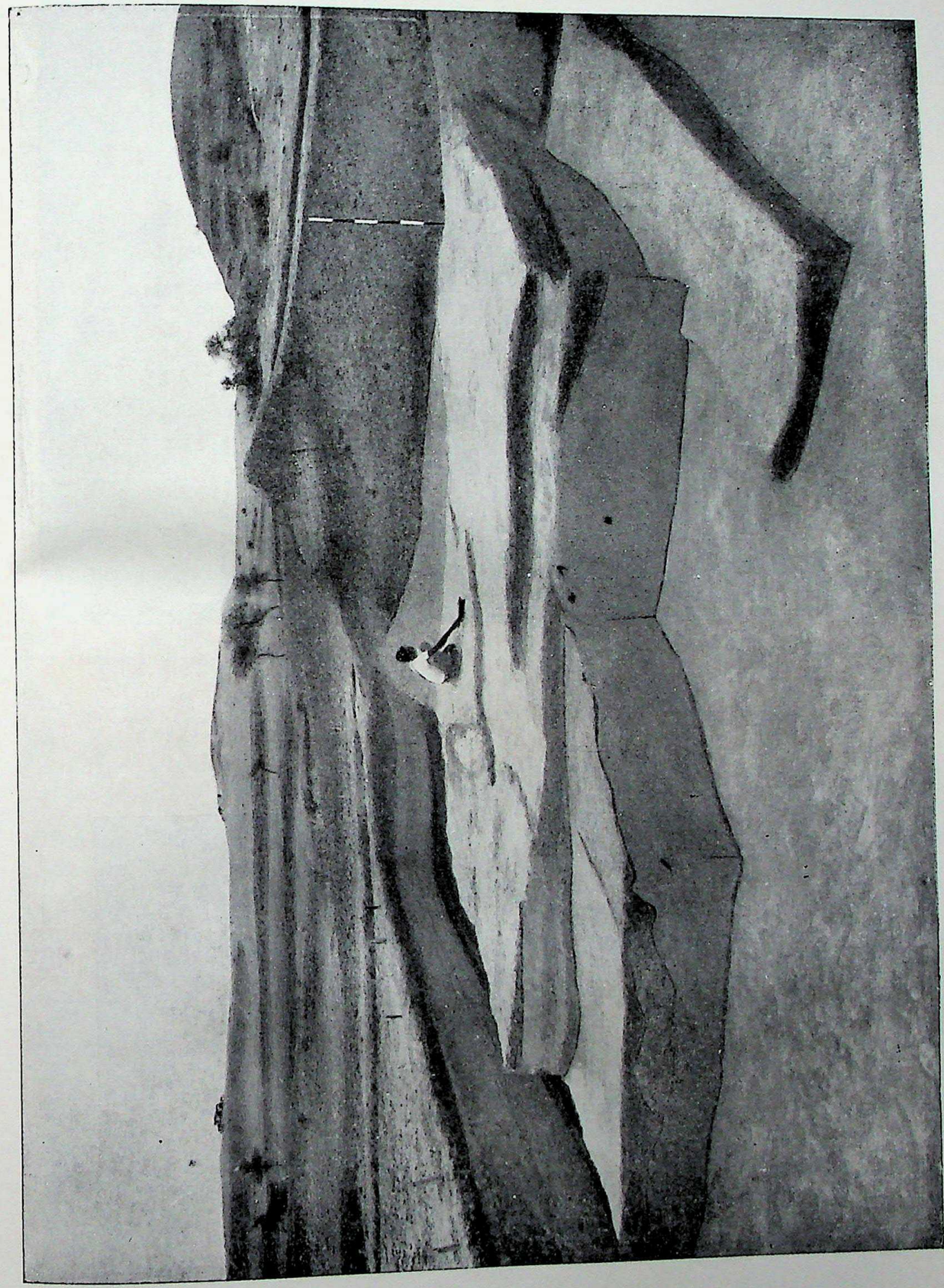


*B.* Stair 1

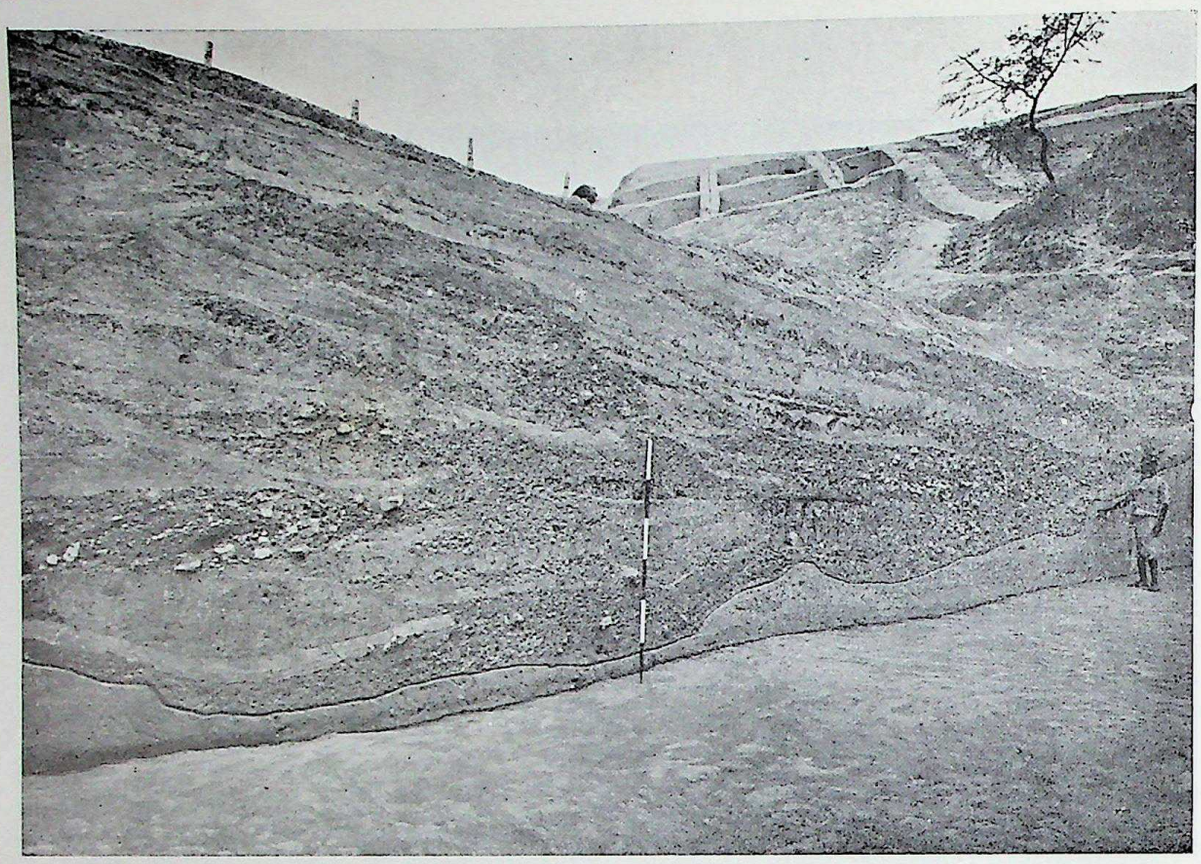


Guard-rooms and Stair 2—roads and watch-tower in the back-ground

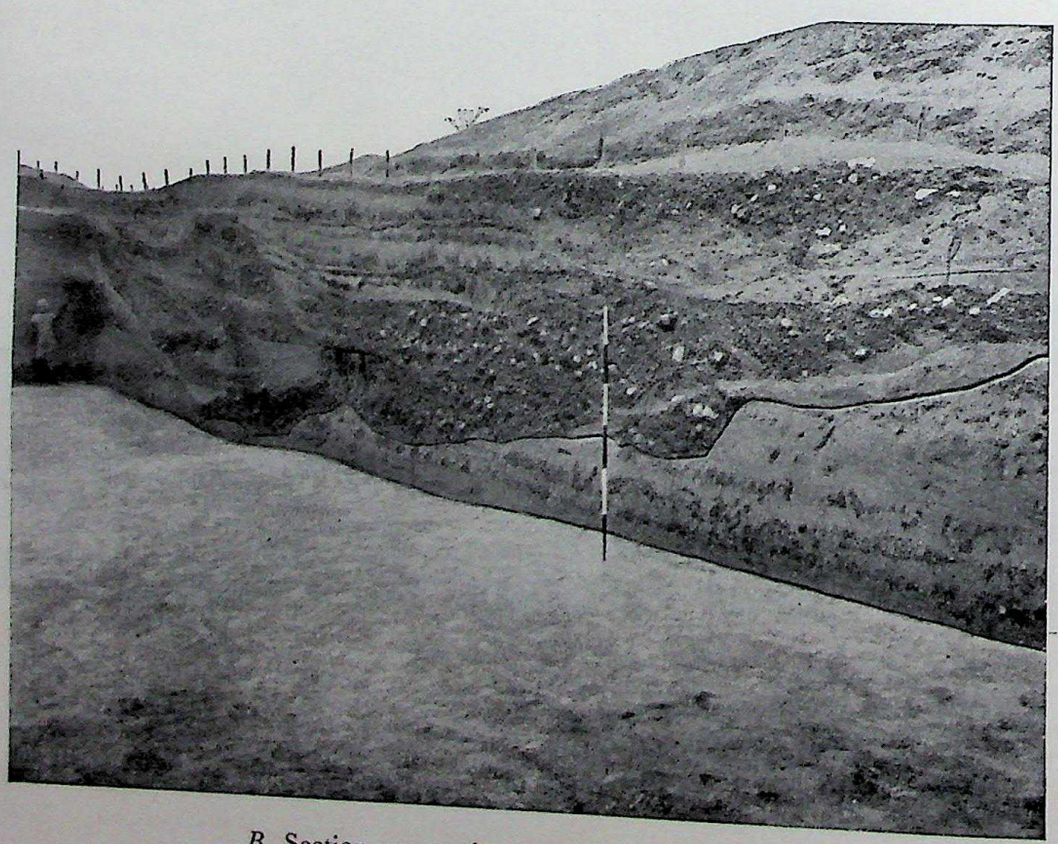
Flank-walls and blockings of the passages through the guard-rooms



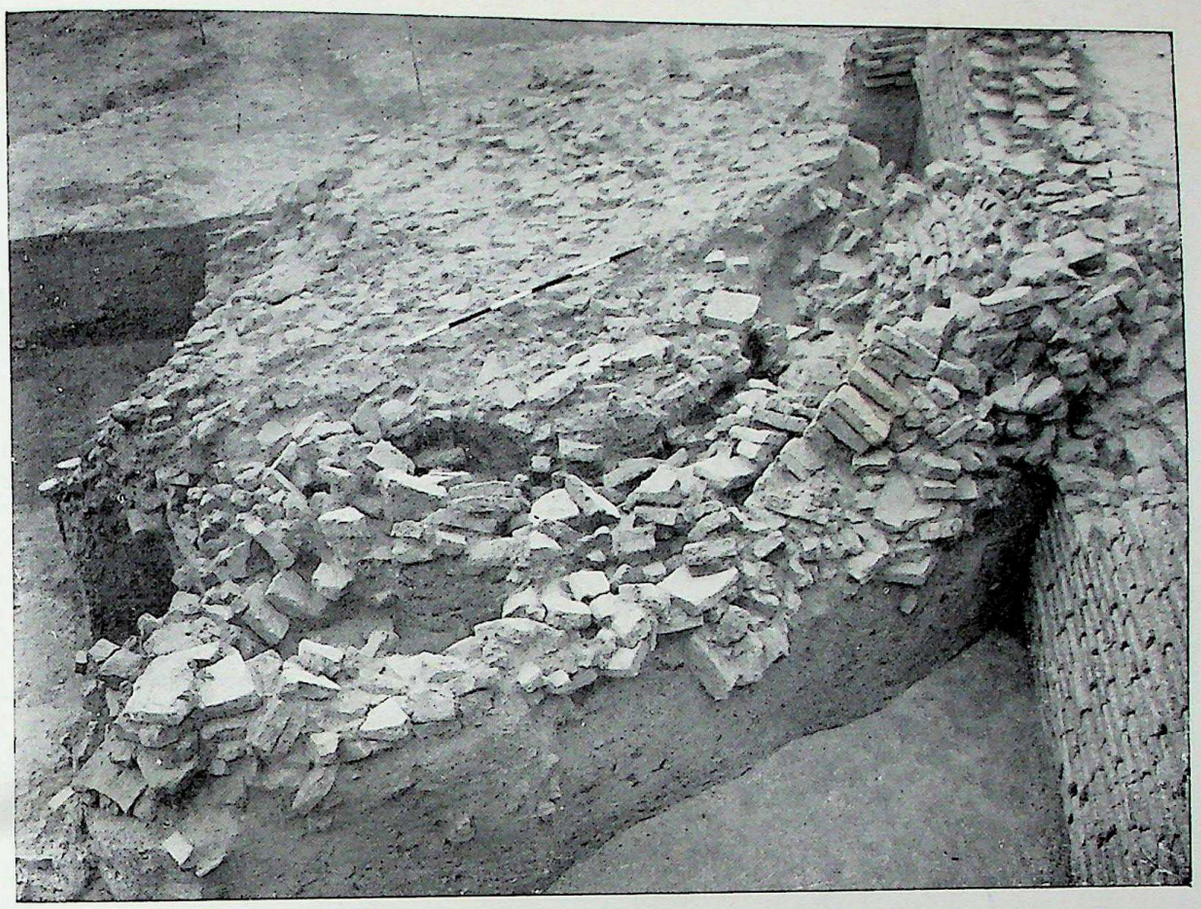
Roads



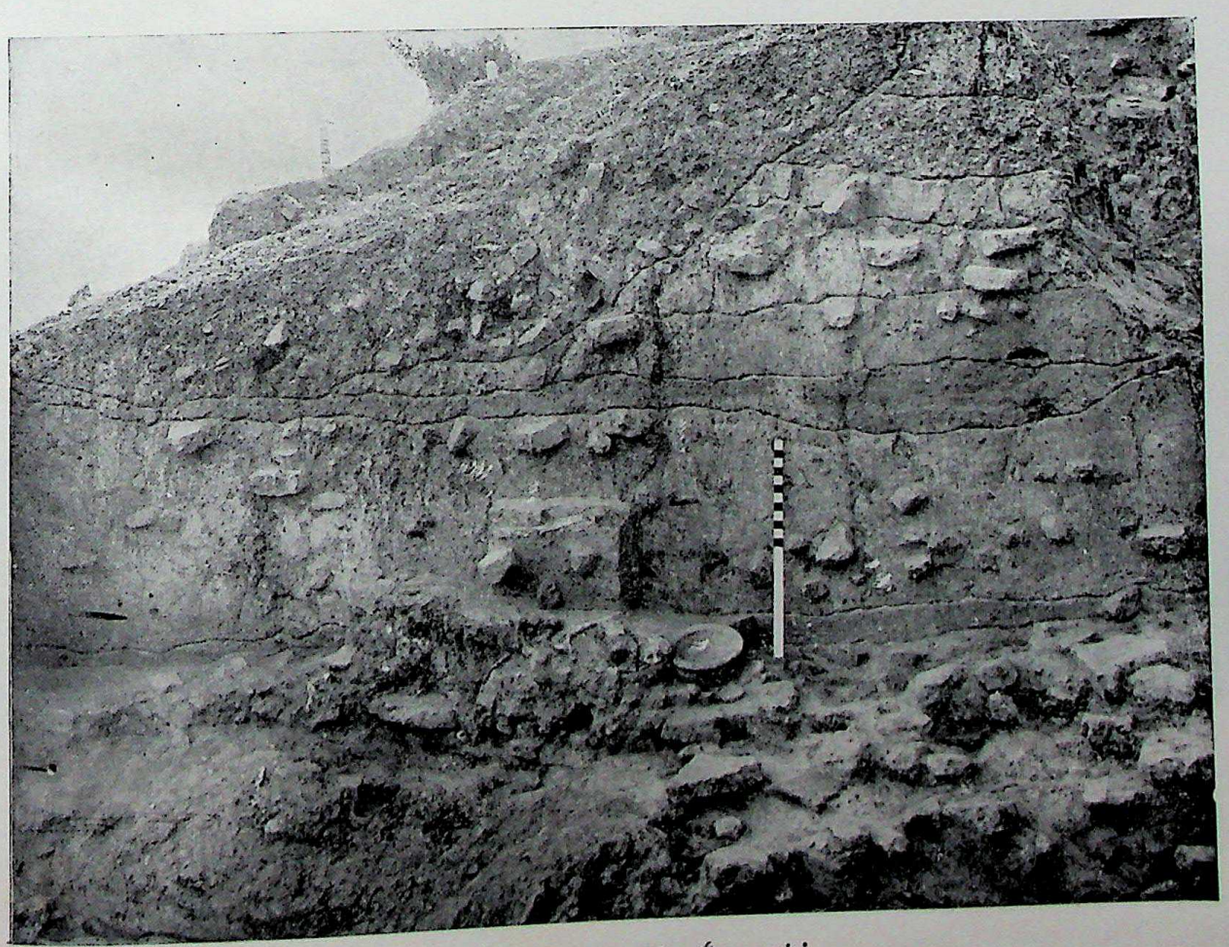
*A.* Section across the moat, looking south-west



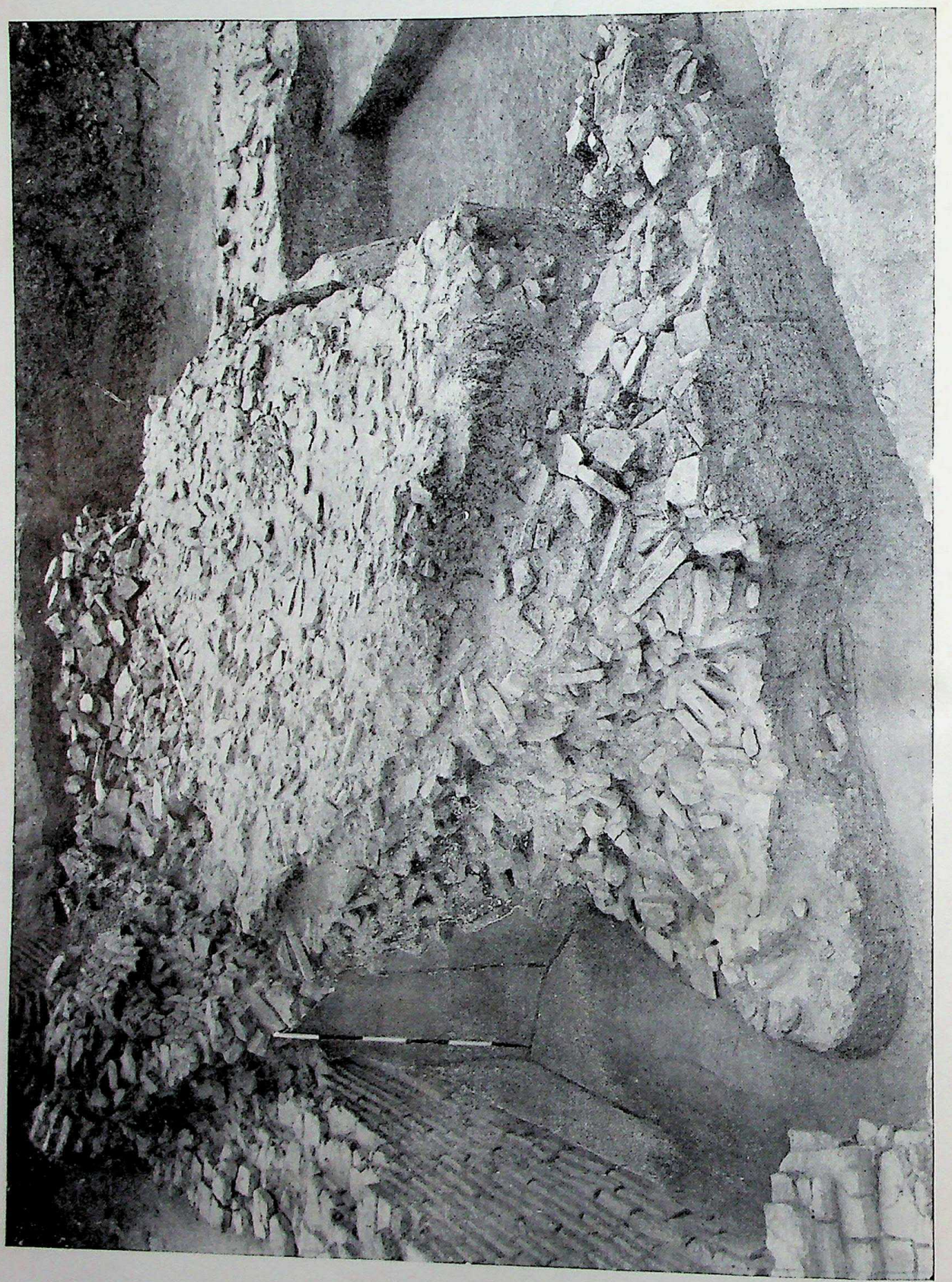
*B.* Section across the moat, looking south-east



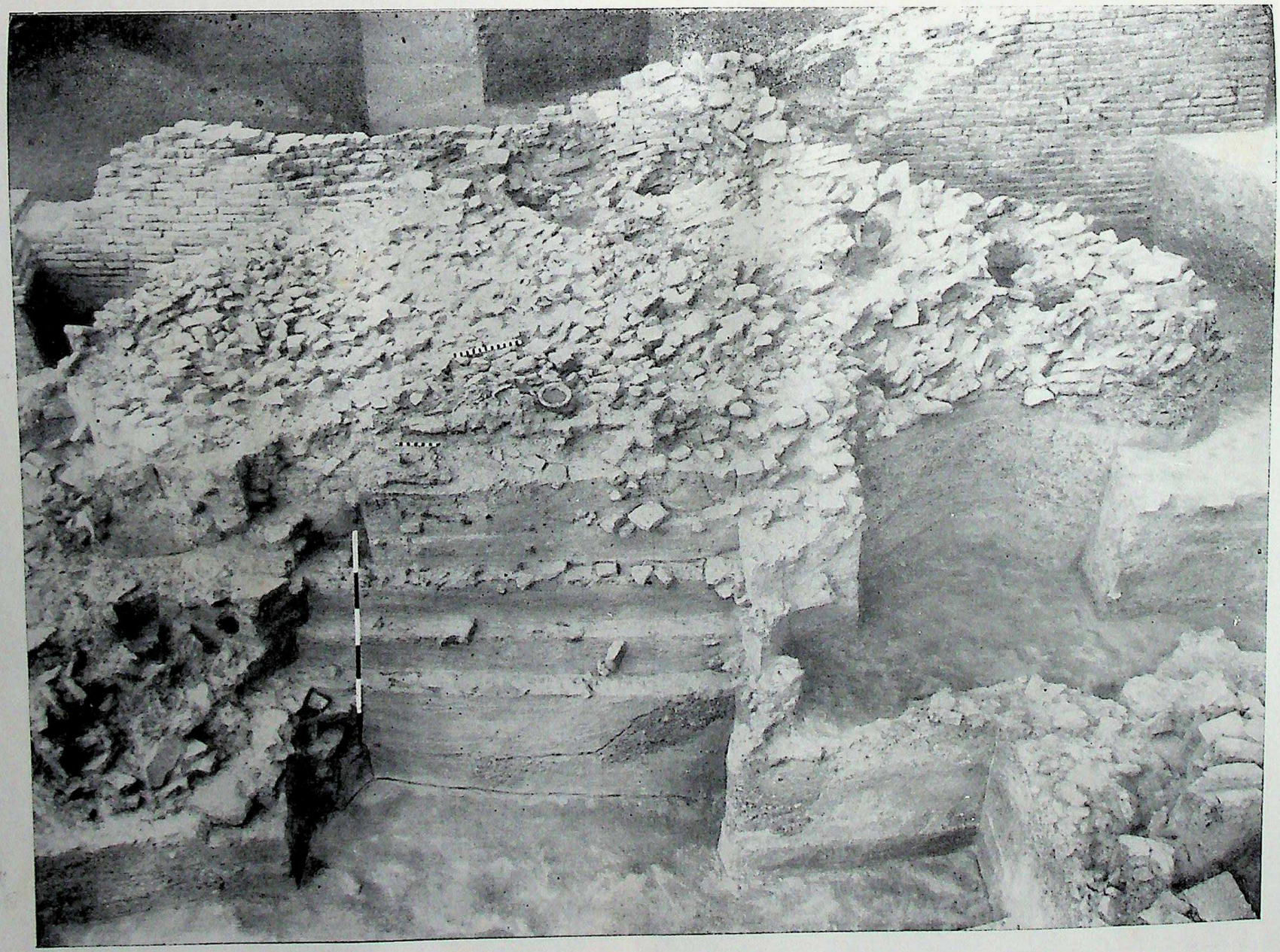
*A.* Śyenaciti : right wing with its three parts, the scale demarcating the wing from the body



*B.* Section across the Śyenaciti



Śyenaciti : head in the foreground, horizontal scale demarcating the body from the wing



Section across the Śyenacitı : vertıcal scale against Uttaravedi, two-foot scale against Svayamātṛṇā and one-foot scale against tortoise-shell



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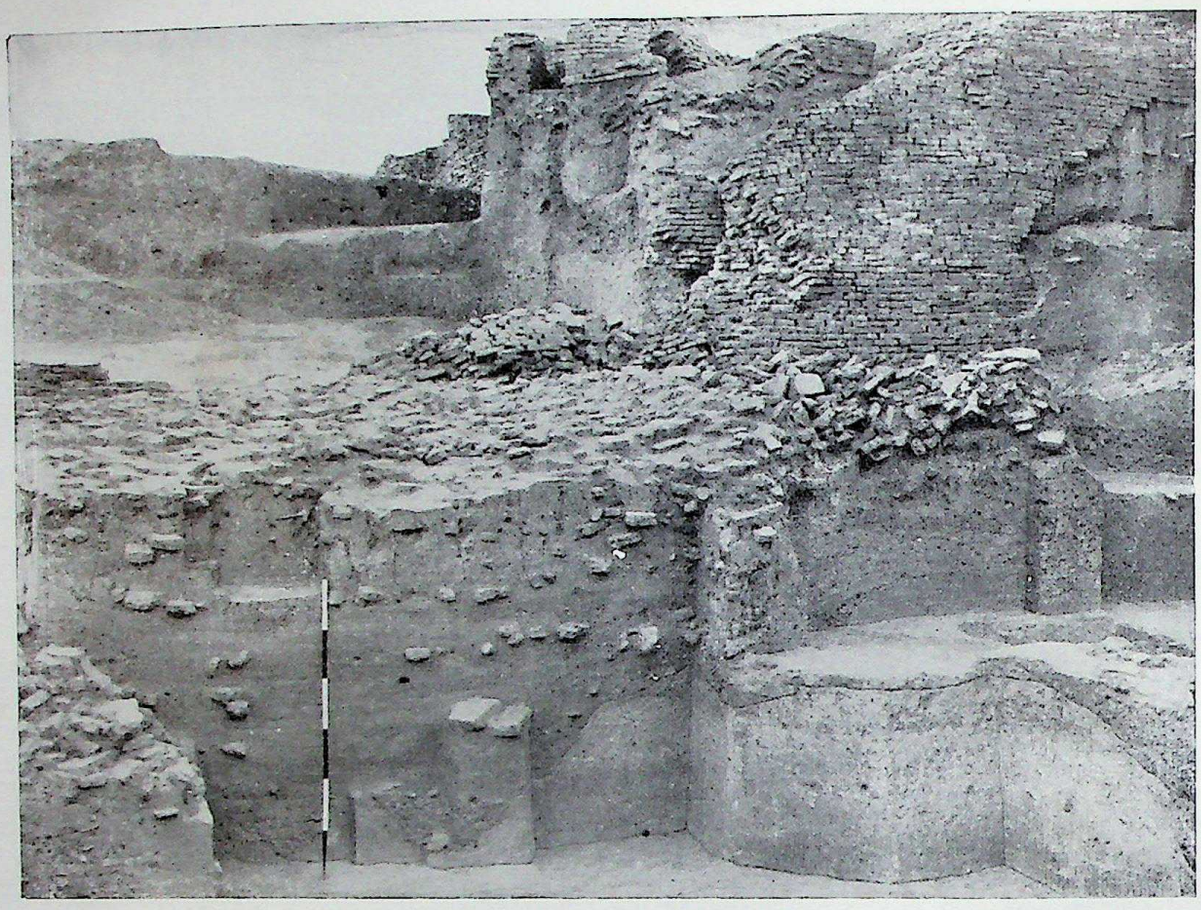
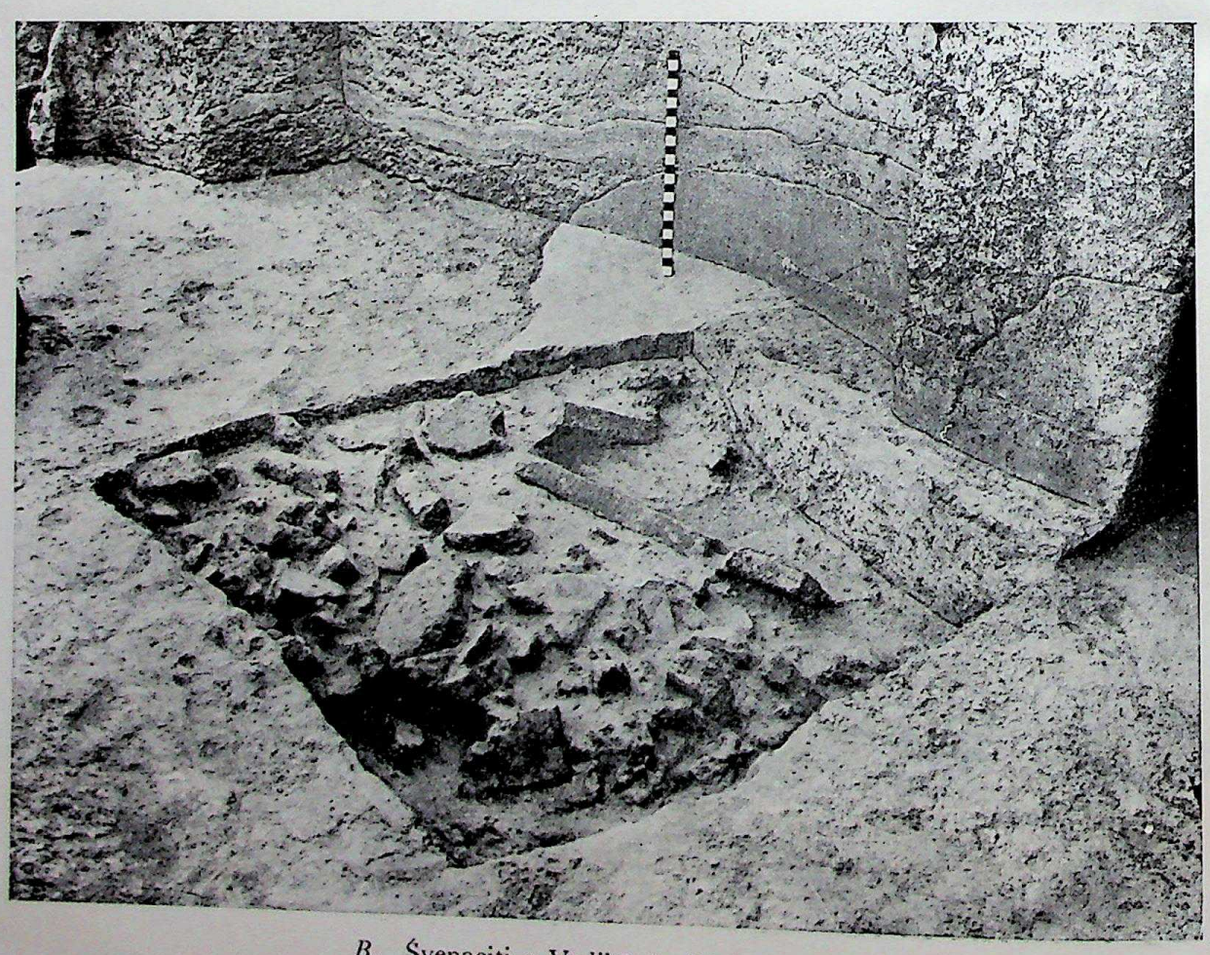
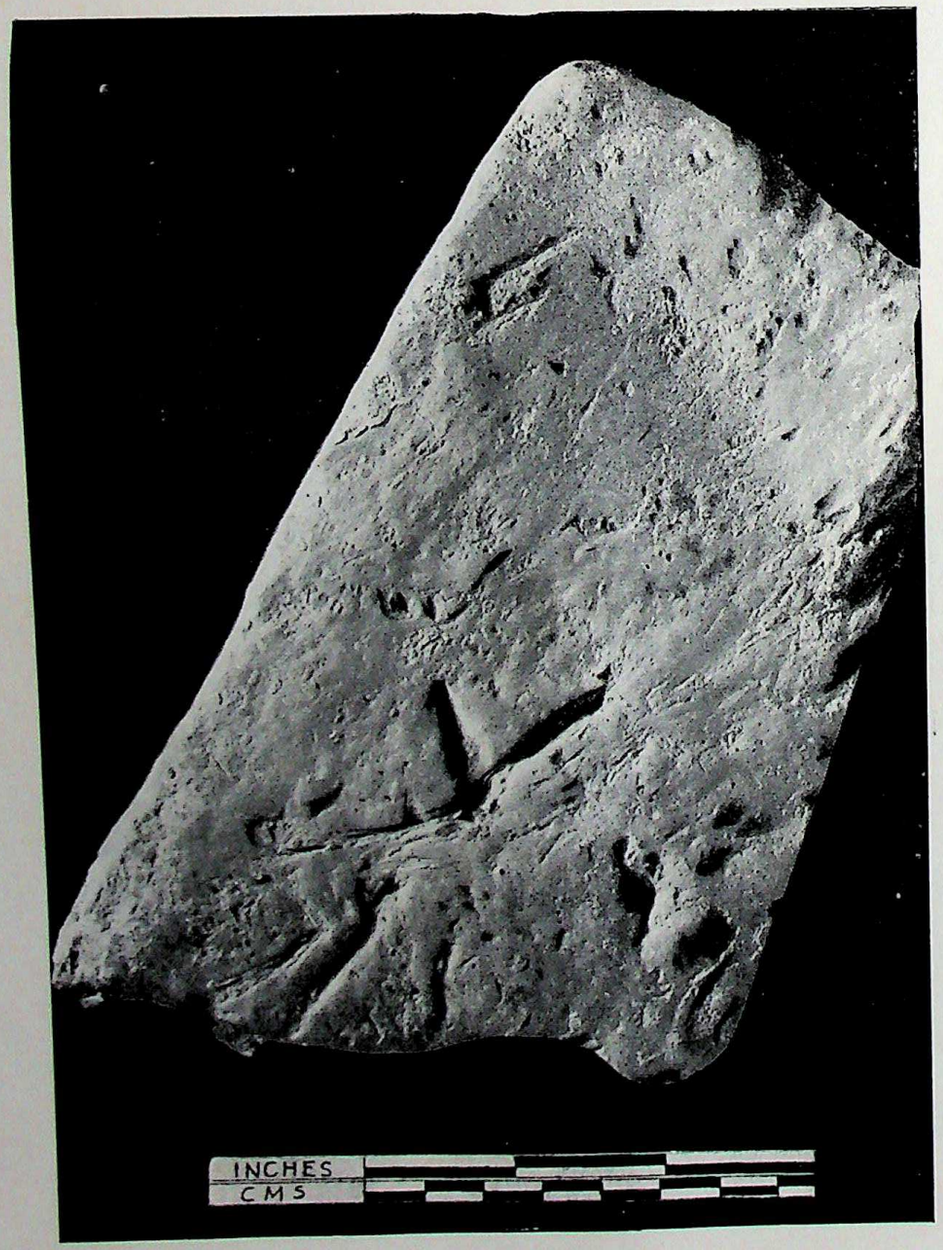


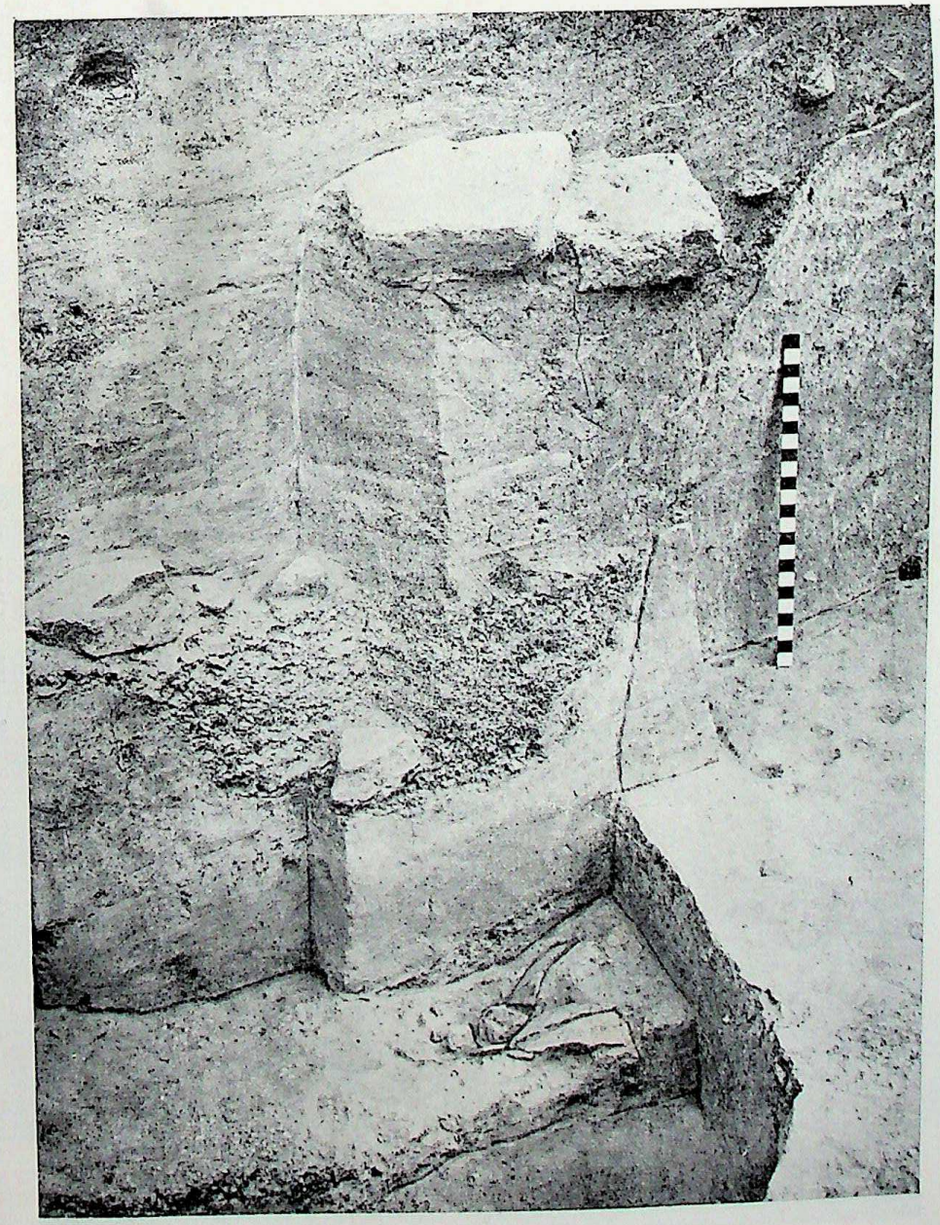
*A.* Section across Śyenaciti : scale against Uttaravedi



*B.* Śyenaciti : Vedikā 4 – Gārhapatya

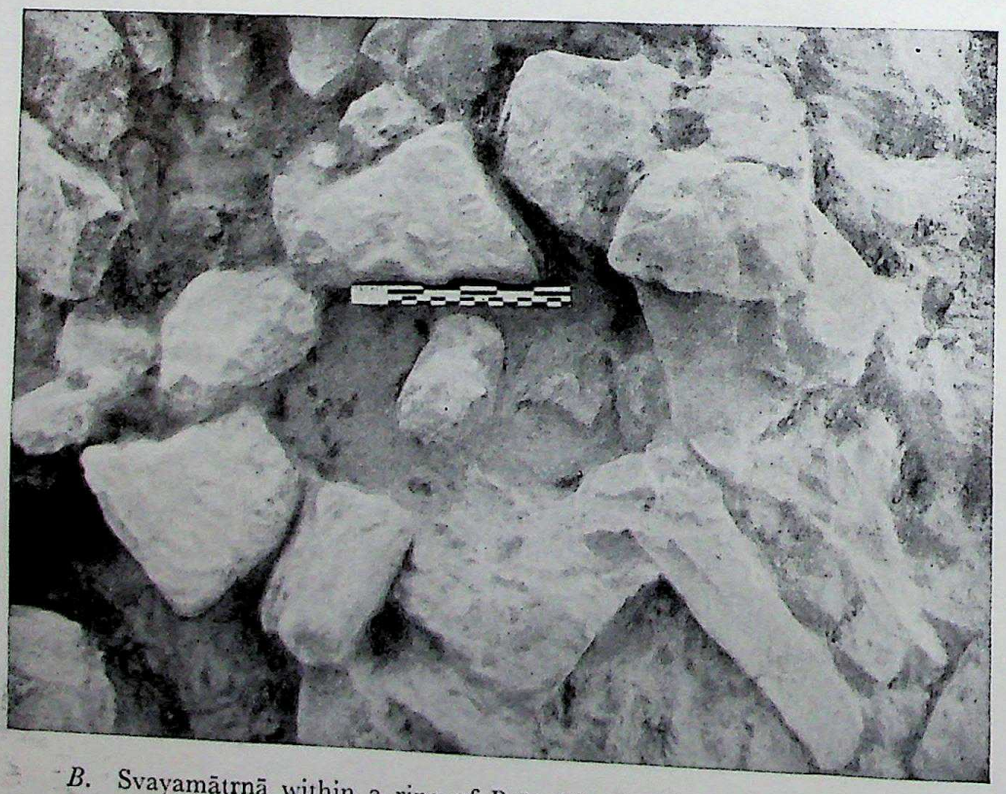



*B.* The Aṣāḍhā with the portrayal of human sacrifice

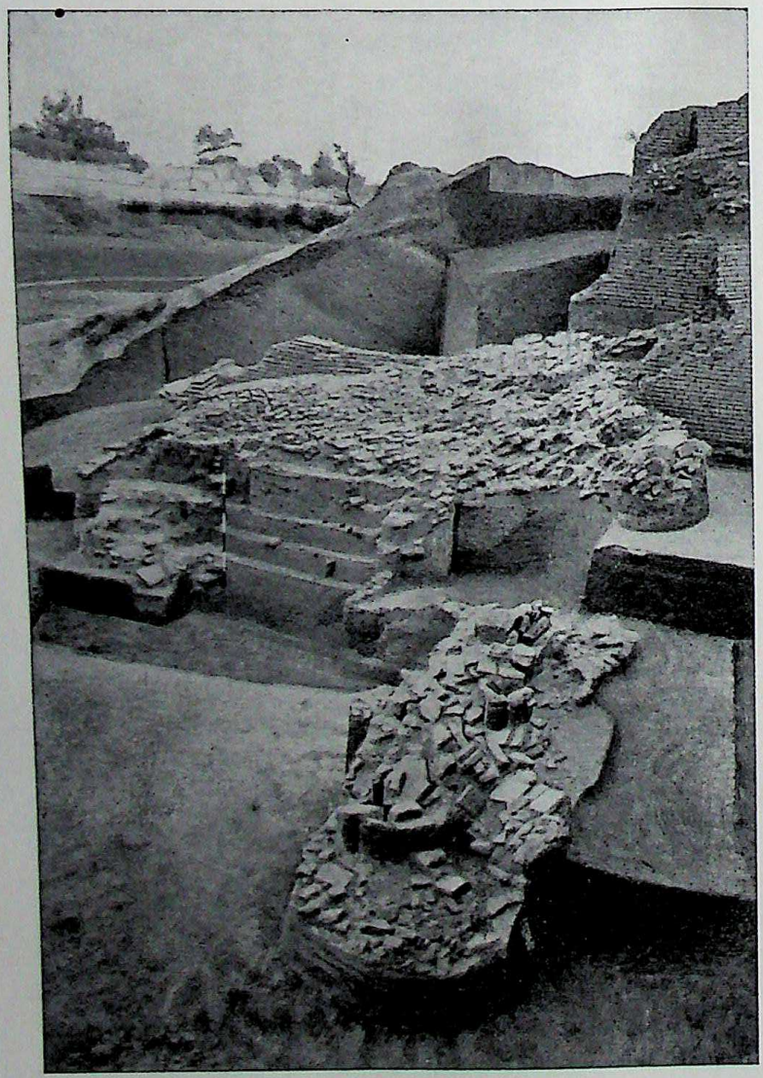


*A.* Śyenaciti : bone of Zebu (humped cattle) on pot-sherds representing the initial rite Vaiśvānara-Paśupuroḍāśa

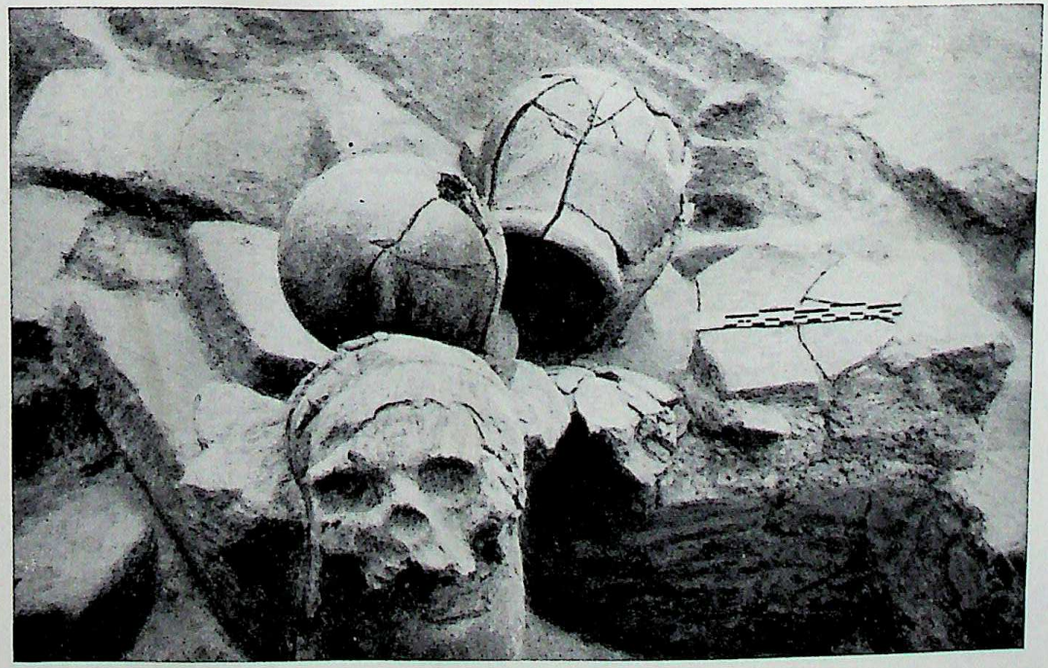
*A.* The Ukhā



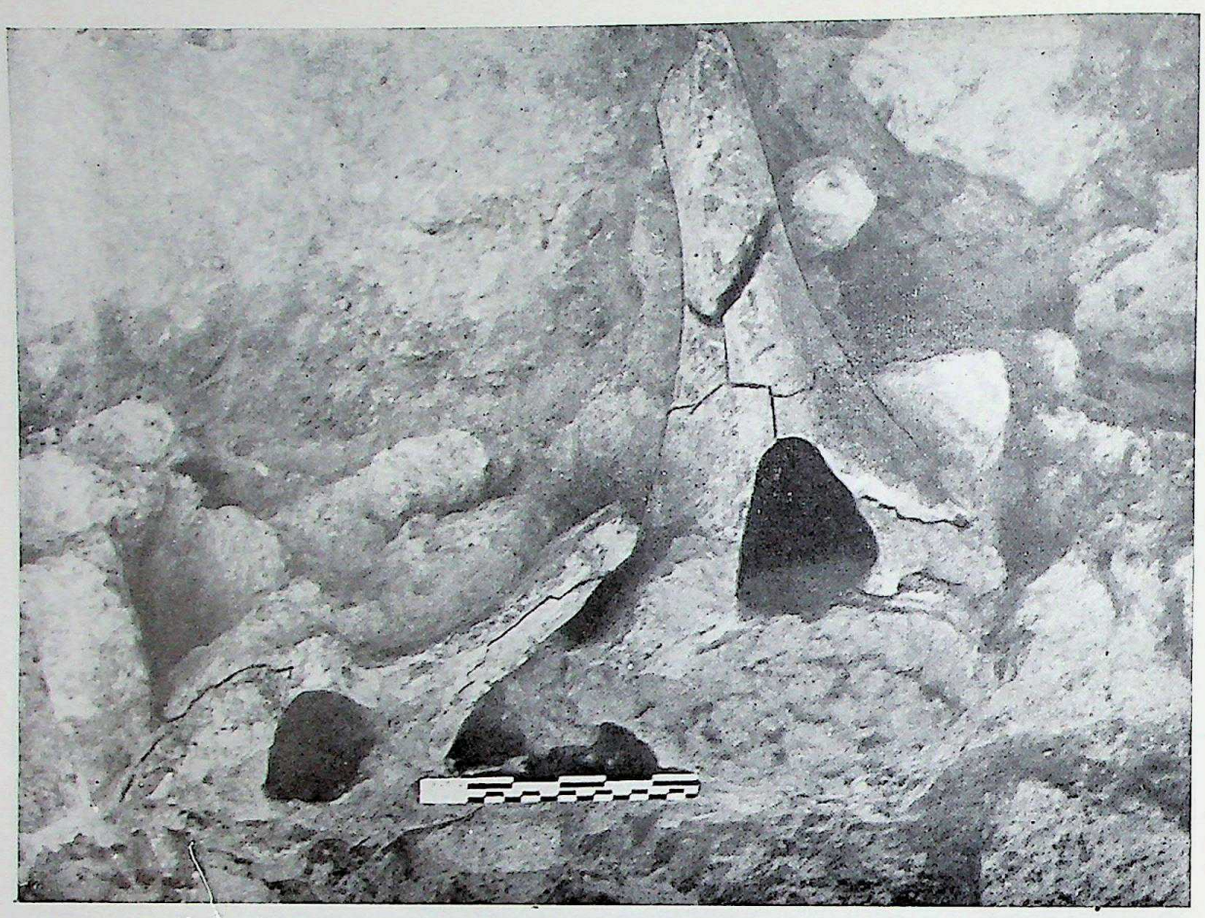
*B.* Svayamātṛṇā within a ring of Prāṇabhṛt bricks in the first layer



*A.* Śyenaciti : human skull on the tail in the foreground



*B.* Human skull on the tail of the Śyenaciti

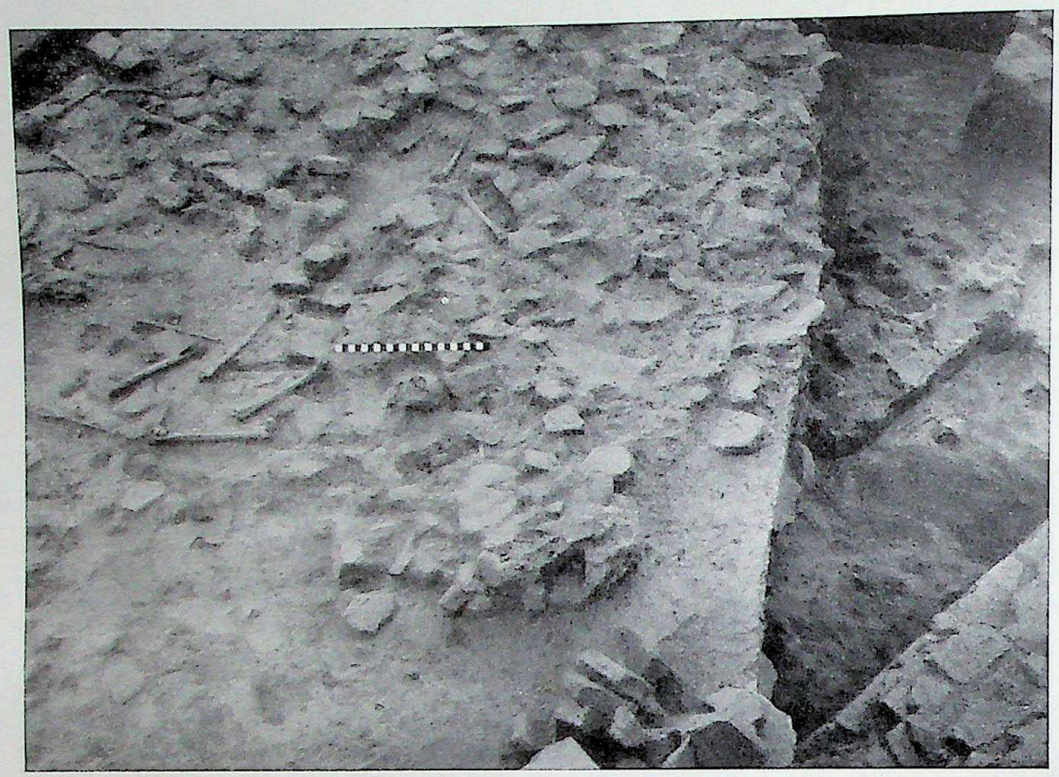


*A.* Śyenaciti : bones of elephant and domestic buffalo in the first layer

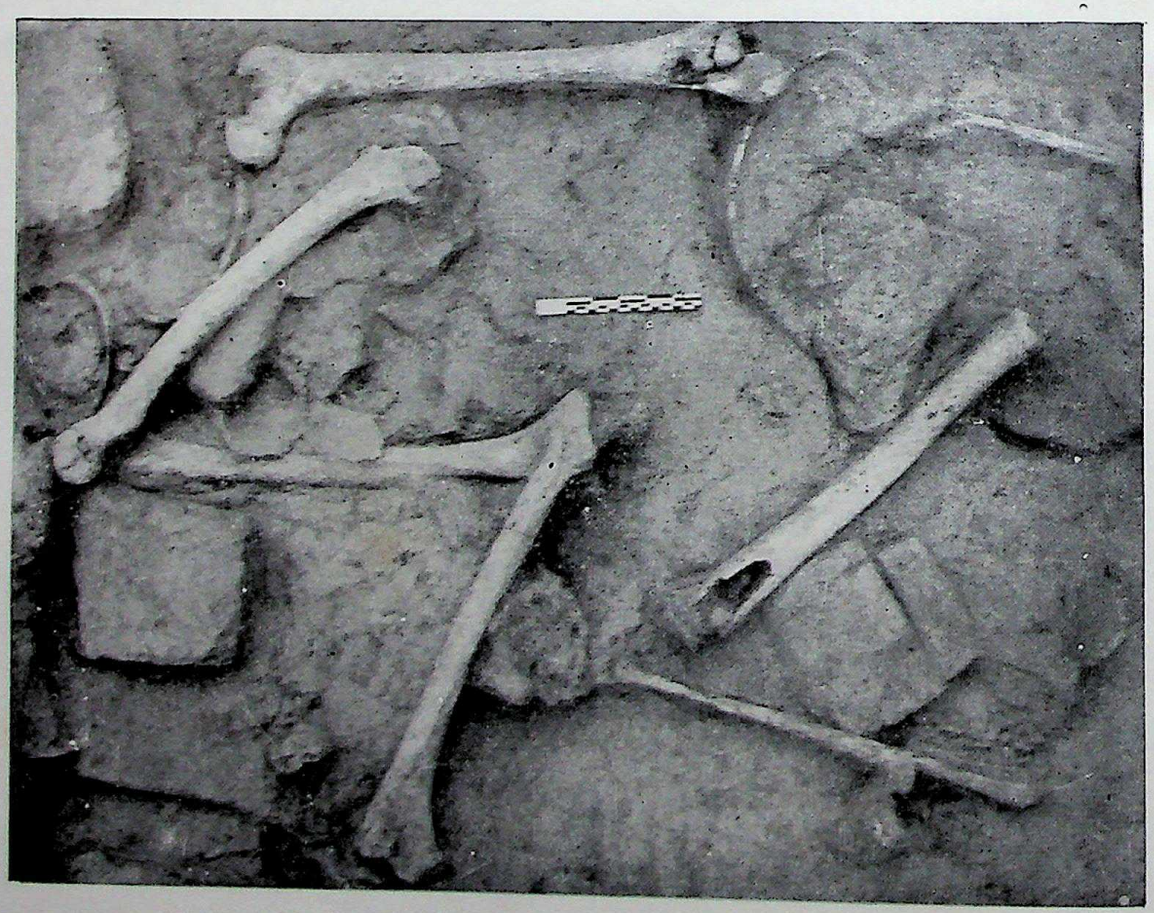
*B.* Śyenaciti : bones in the first layer

*A.* Śyenaciti : jaw of ass and bone of goat in the first layer

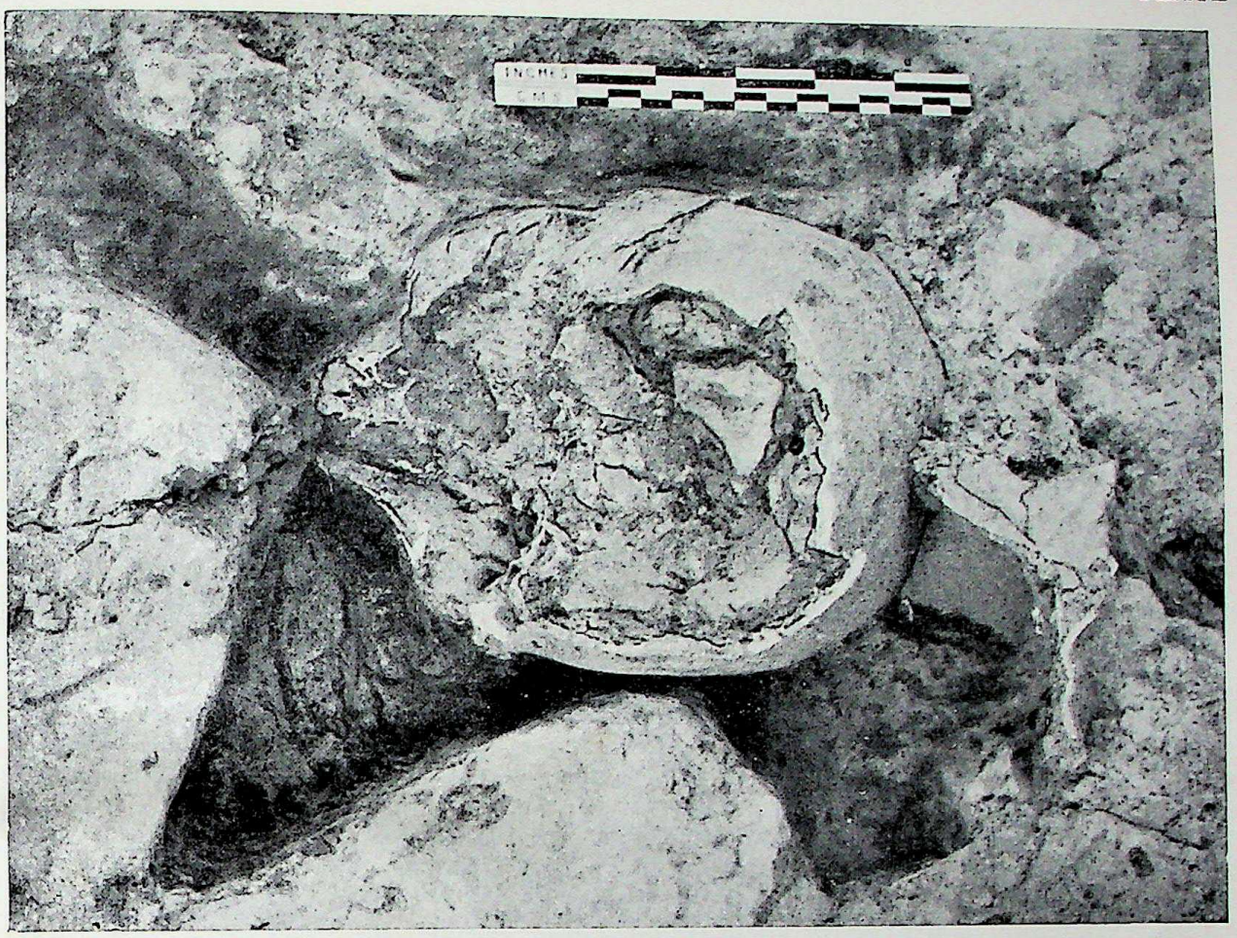
*B.* Śyenaciti : right ramus mandible with third molar tooth of Bos Bubalis (buffalo) in the centre of the second layer



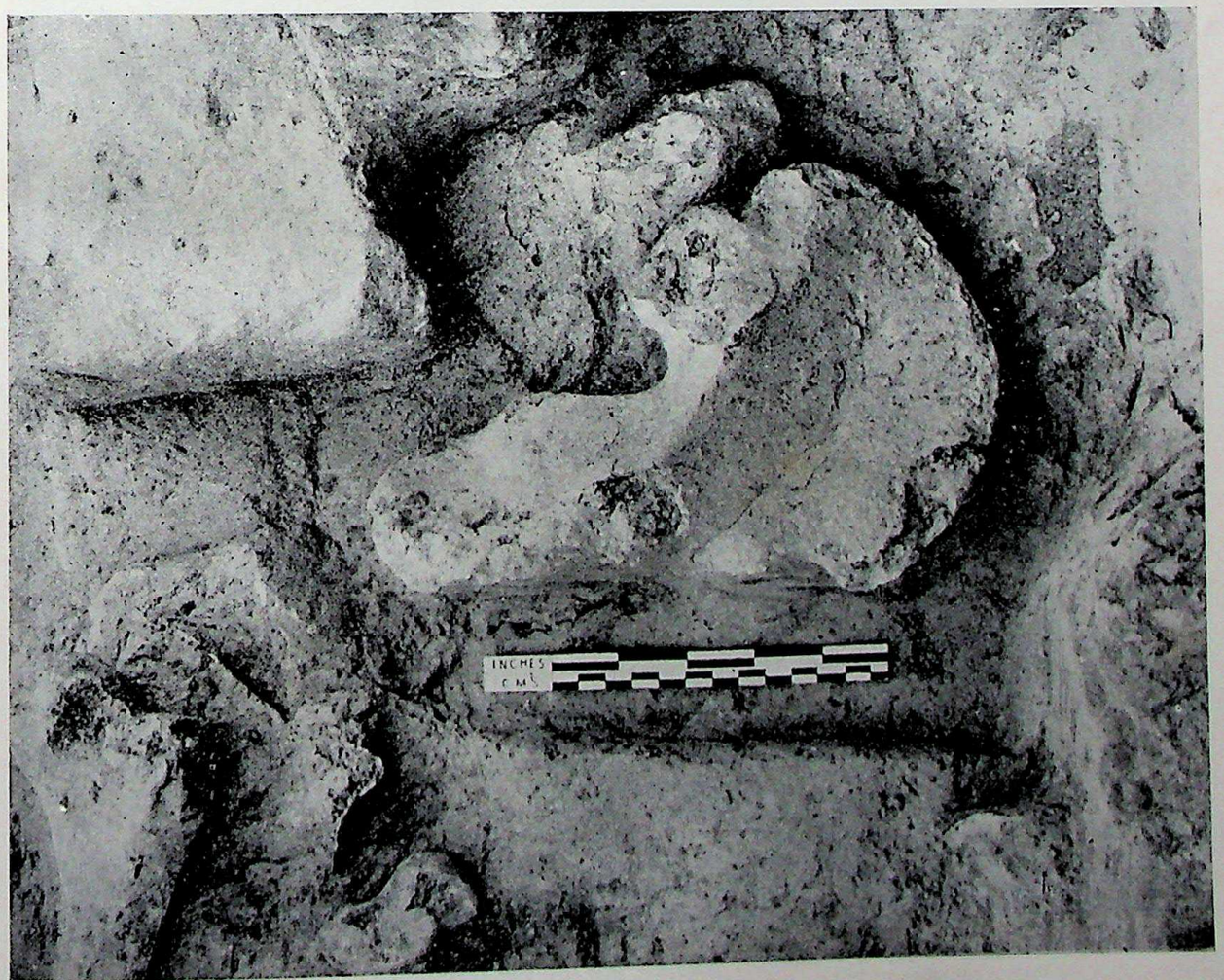
*A.* Śyenaciti : bones in the third layer



*B.* Śyenaciti : human bones in the third layer



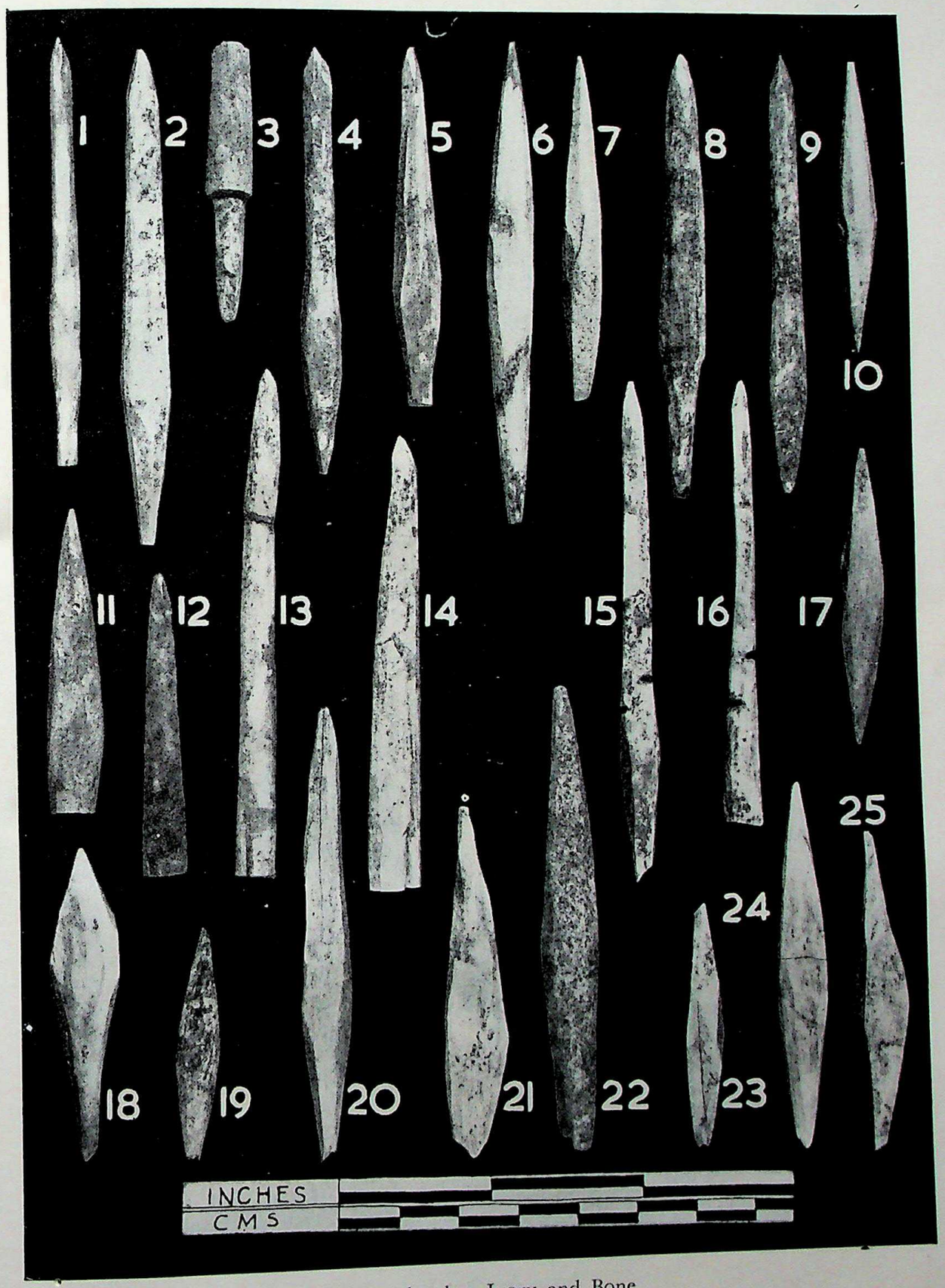
*A.* Śyenaciti : human skull in the third layer



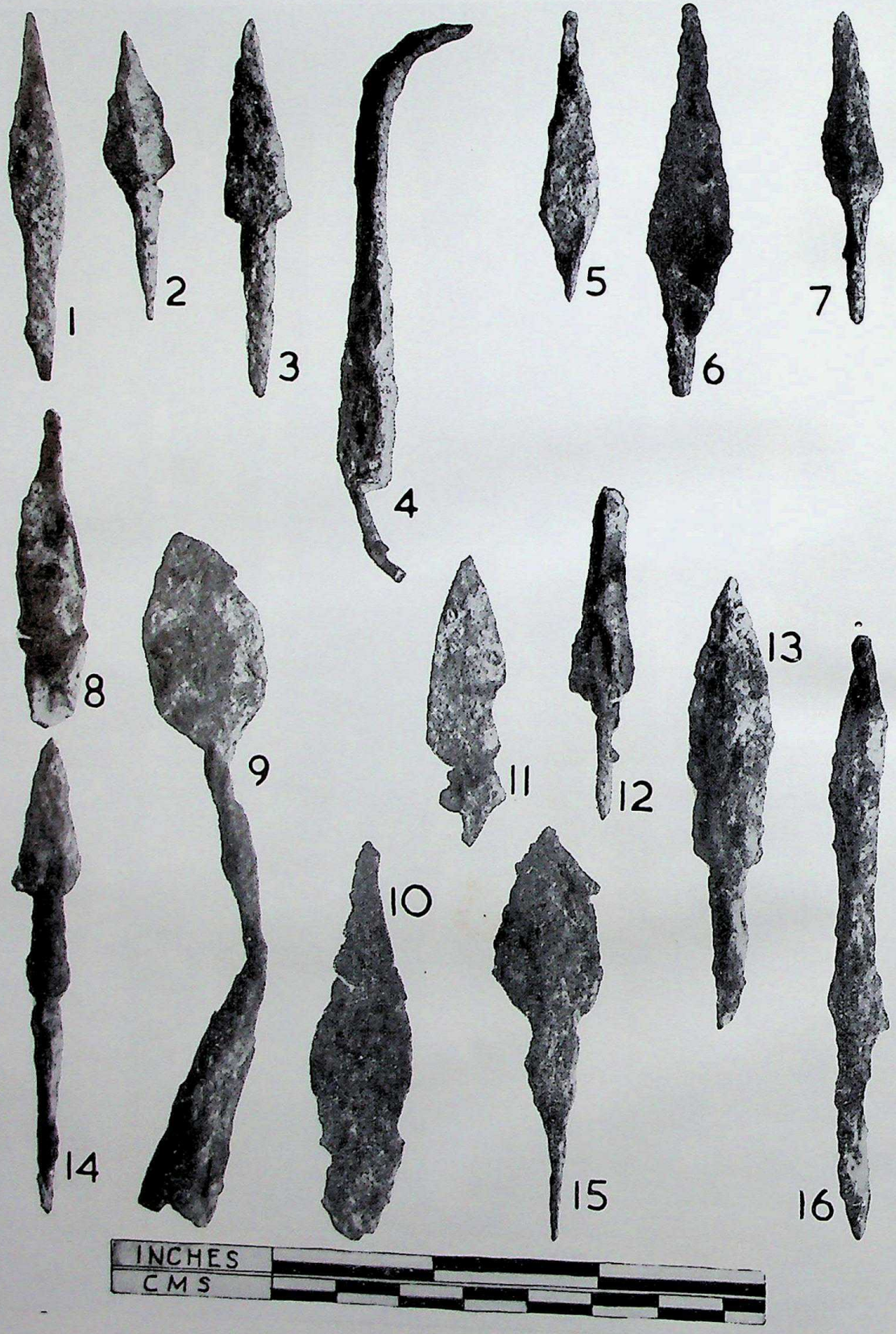
*B.* Śyenaciti : human bone in the third layer

*A.* Śyenaciti : human jaw in the third layer

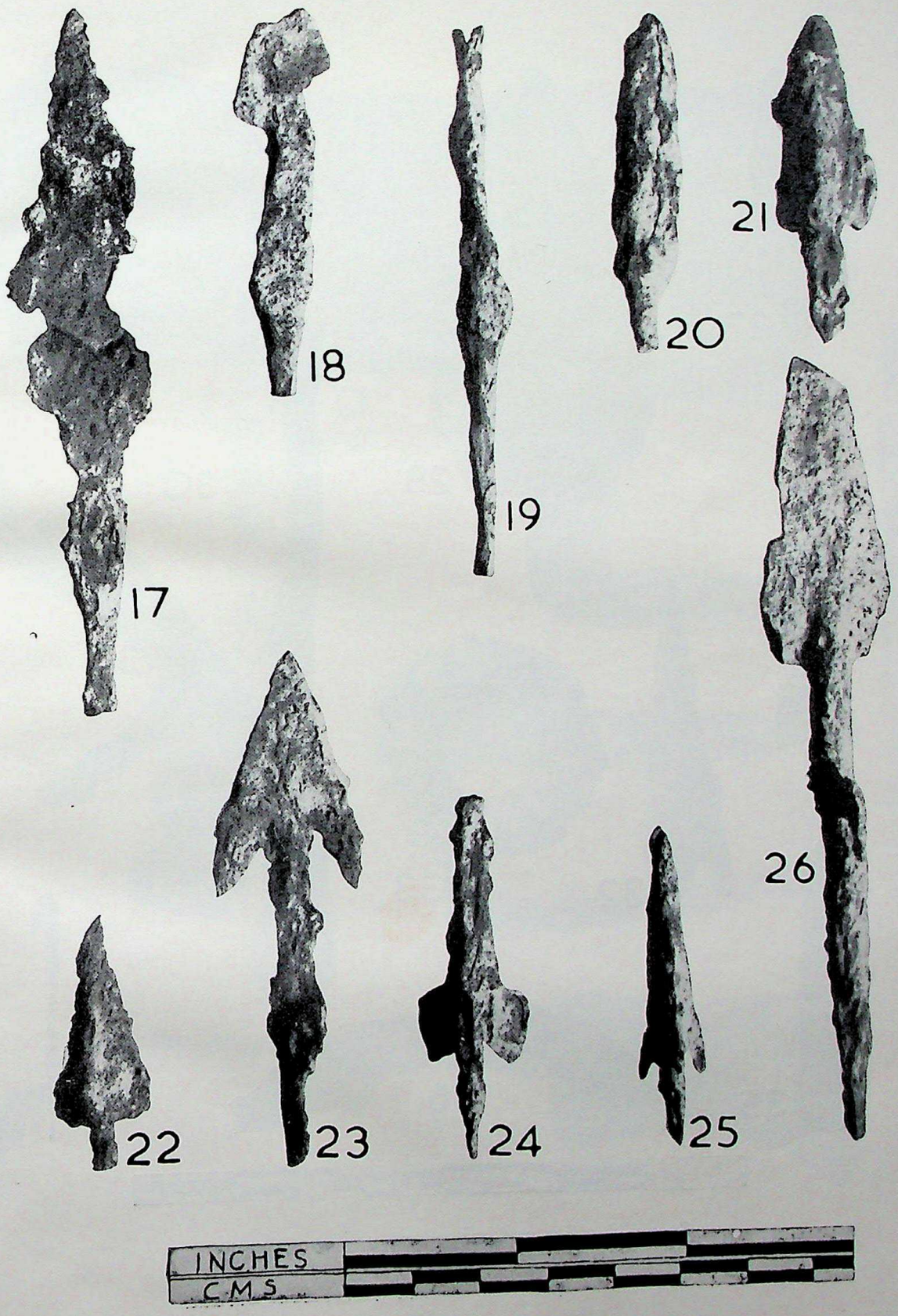
*B.* Syenaciti : human jaw in the fourth layer



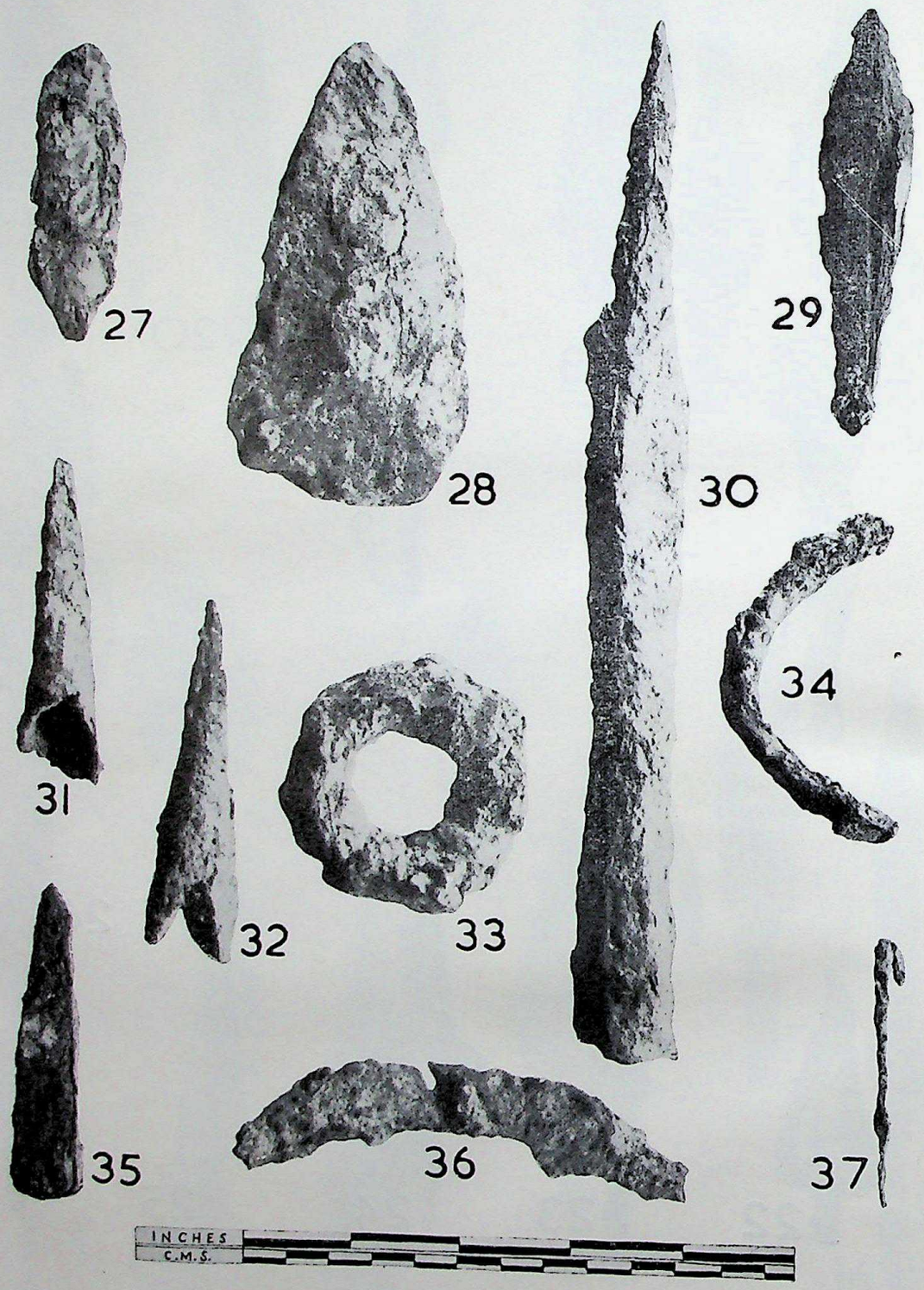

Arrow-heads : Ivory and Bone



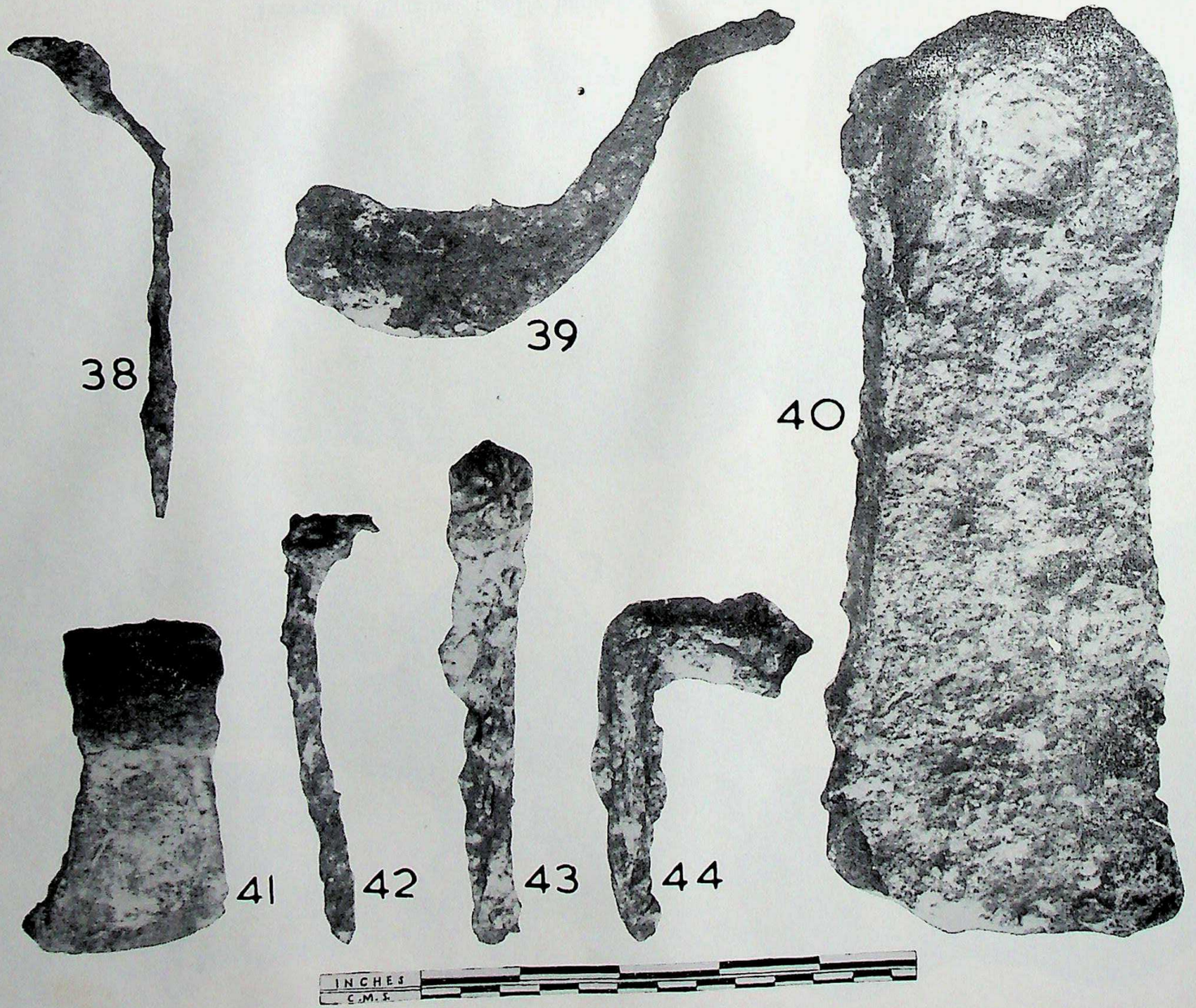

Arrow-heads : Iron



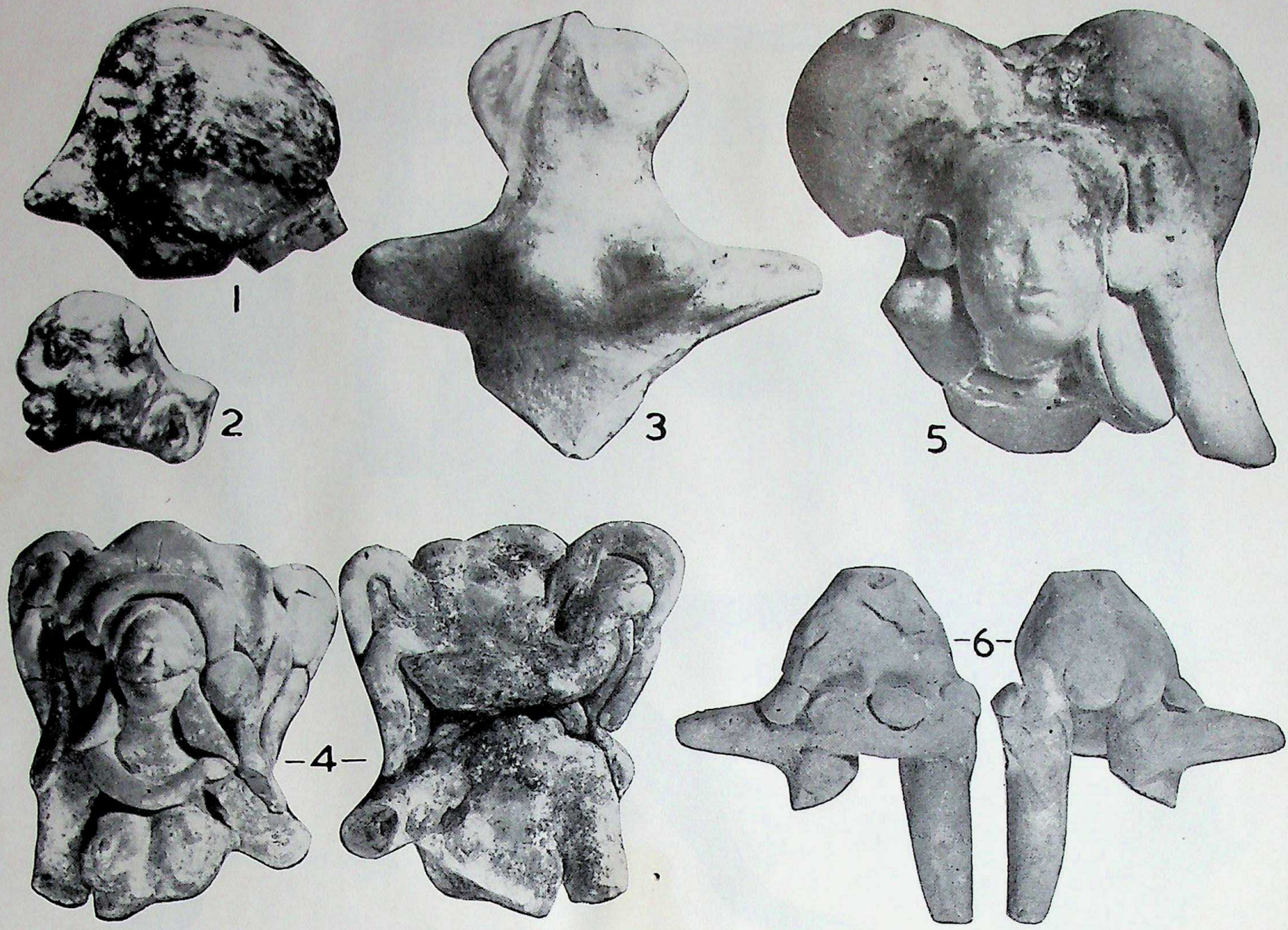

Arrow-heads : Iron




Spears, javelins and miscellaneous iron antiquities




Miscellaneous iron antiquities




Terracotta figurines : early hand-made type, nos. 4 and 6 (1/2)

7

8

9

10

11

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13

Terracotta figurines : mould-made

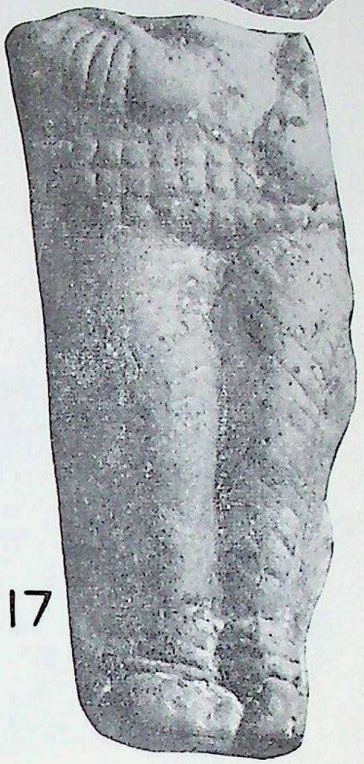
14

15

16

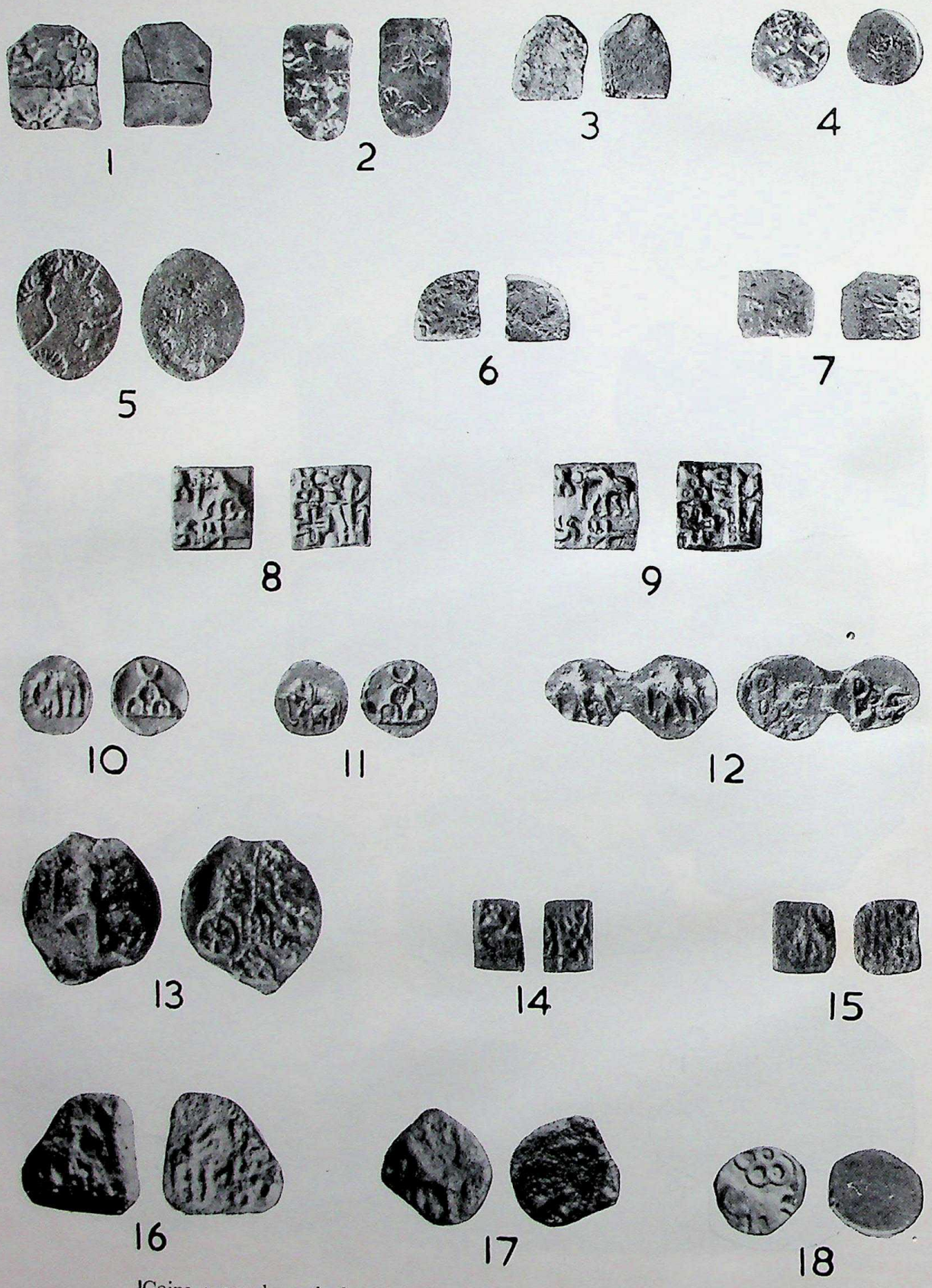
18

19

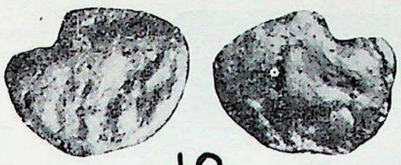

17

Tertracotta figurines : mould-made

Terracotta figurines : late hand-made




ICoins : punch-marked and uninscribed cast, nos. 16, 17 and 18 (2/1)



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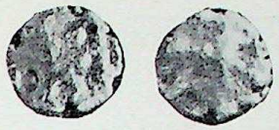

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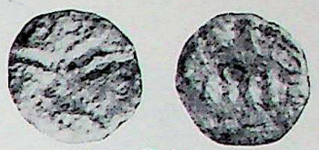

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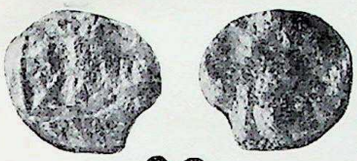
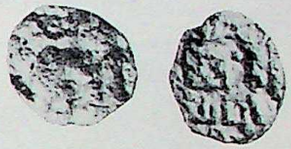


22

23



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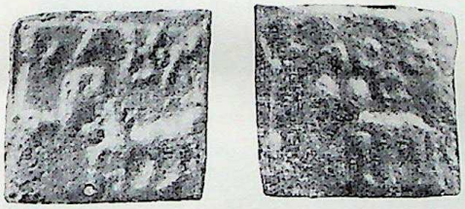

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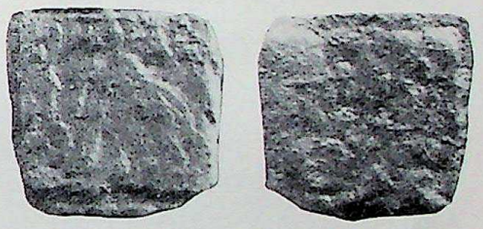
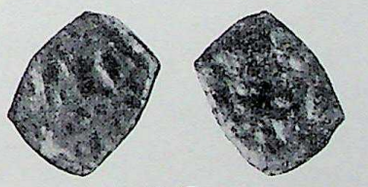


26

27



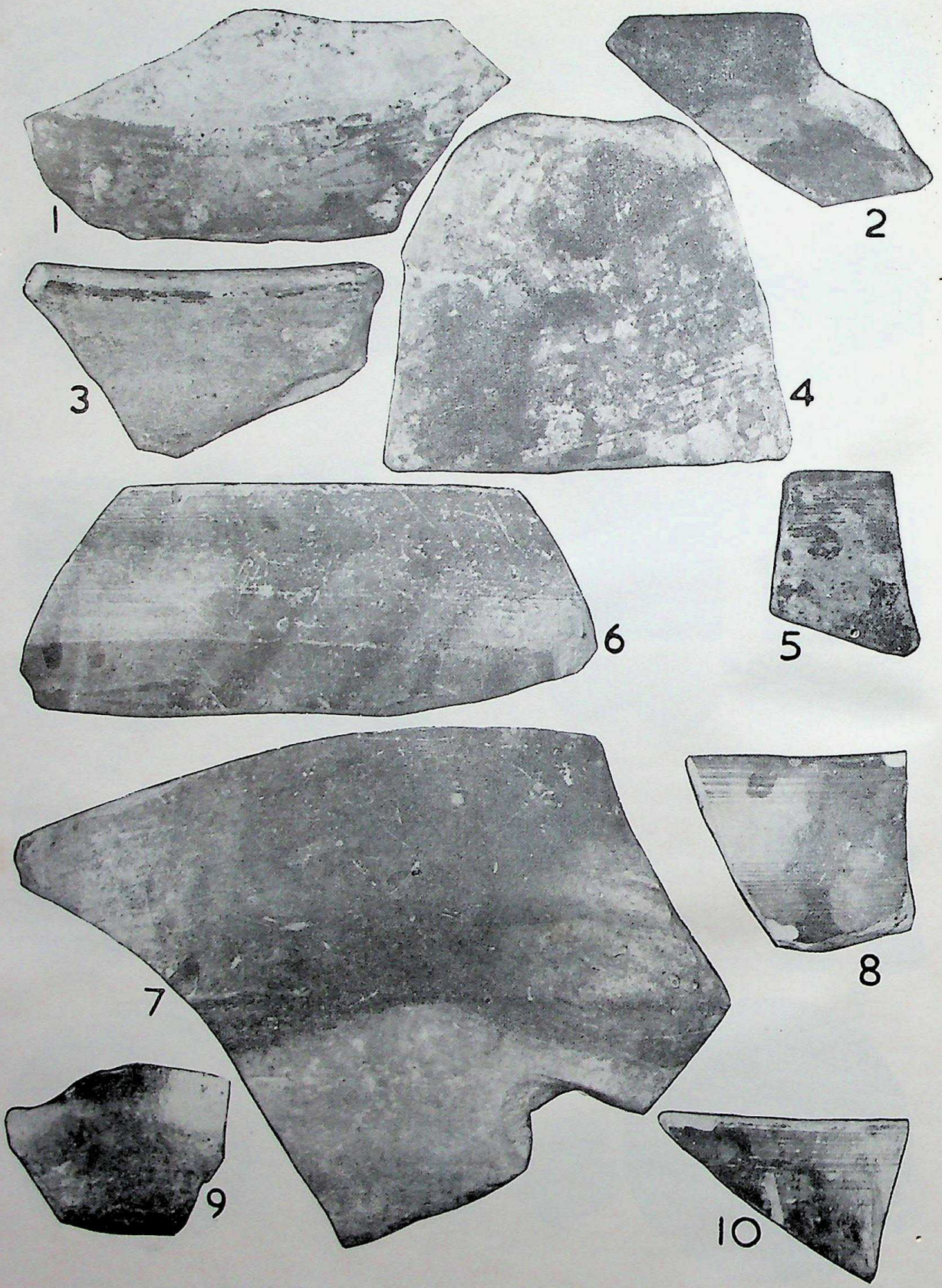
28

29

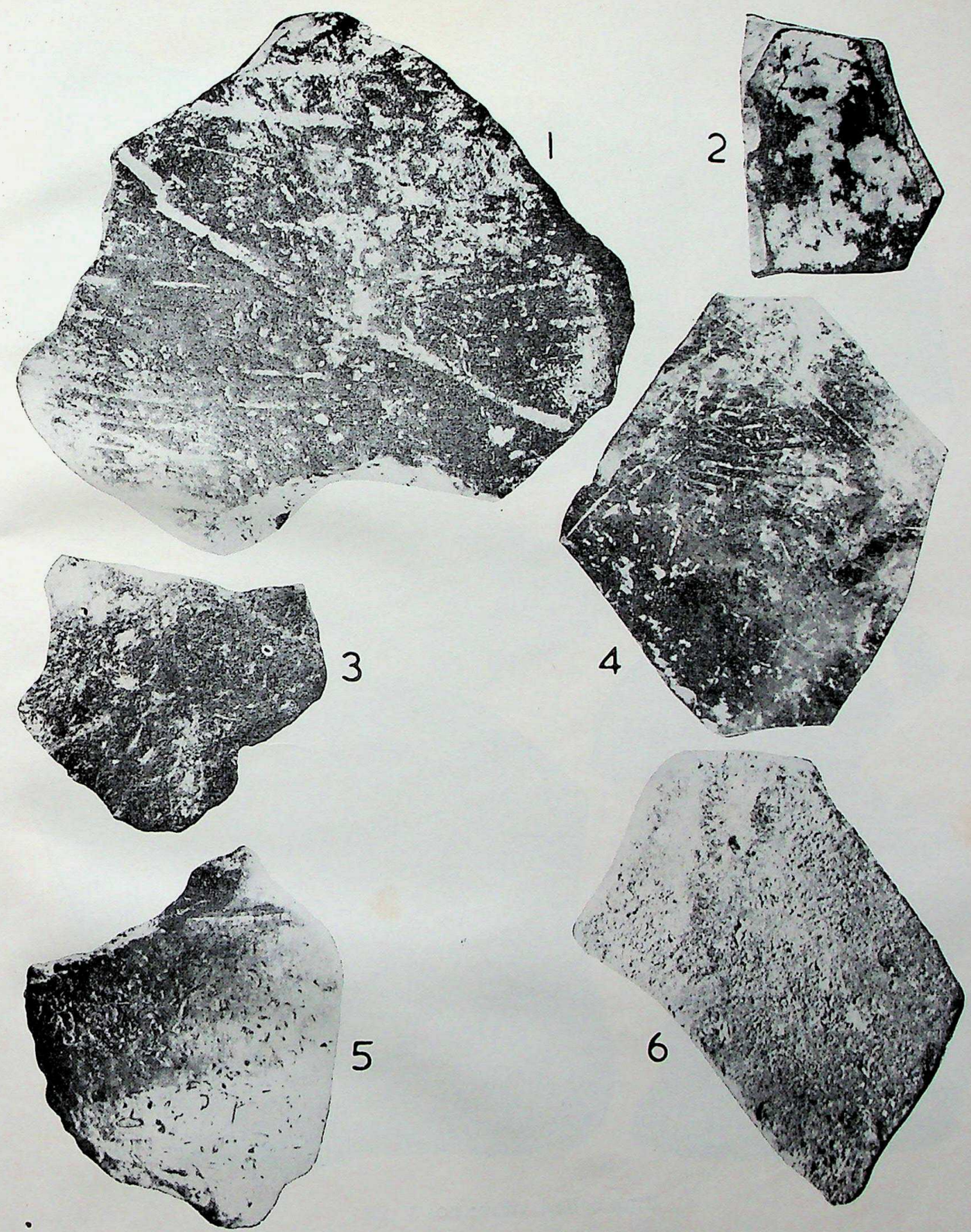
1

2

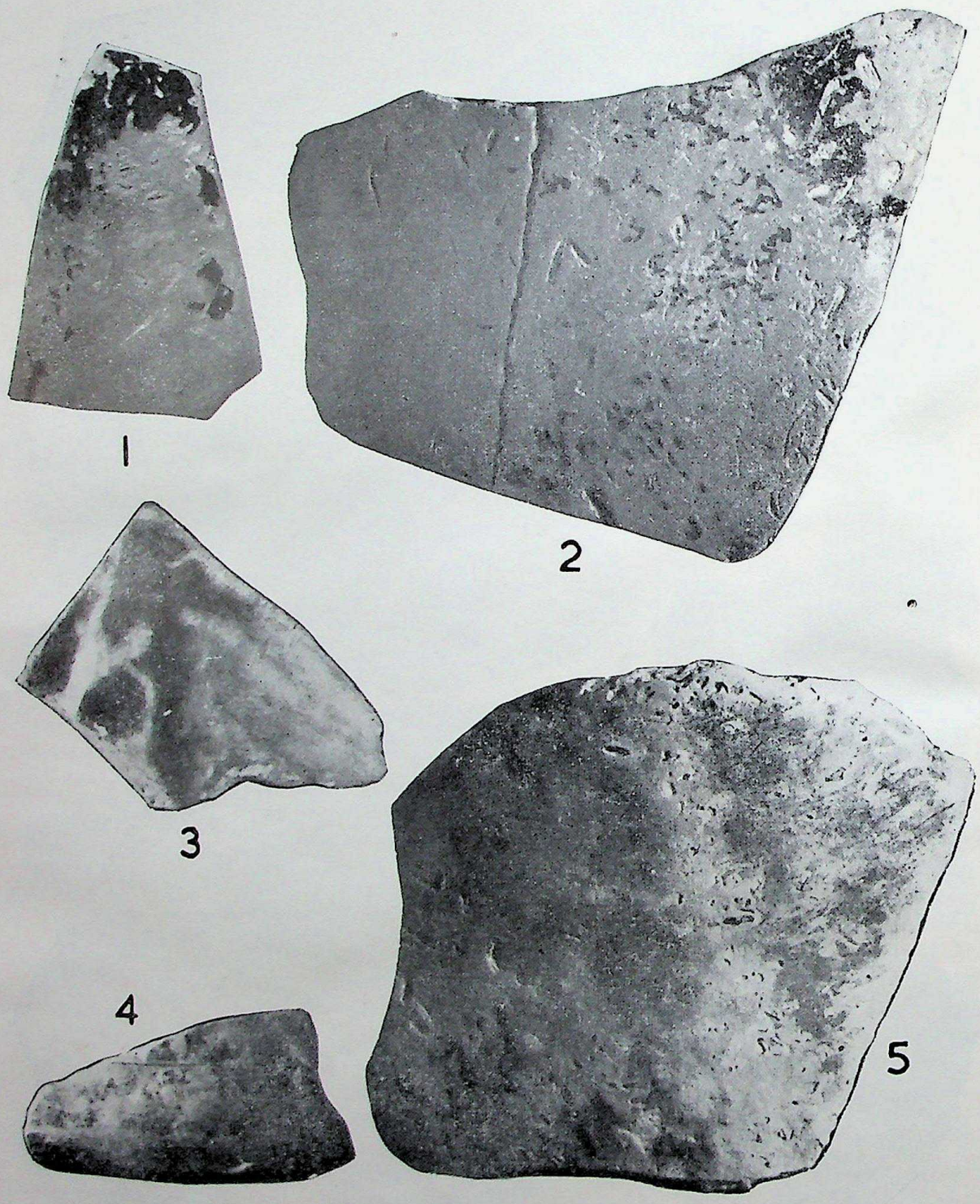
Coins : inscribed cast; 1 and 2, Sealings; nos. 19, 20, 21, 25, 26, 1 and 2 (2/1)



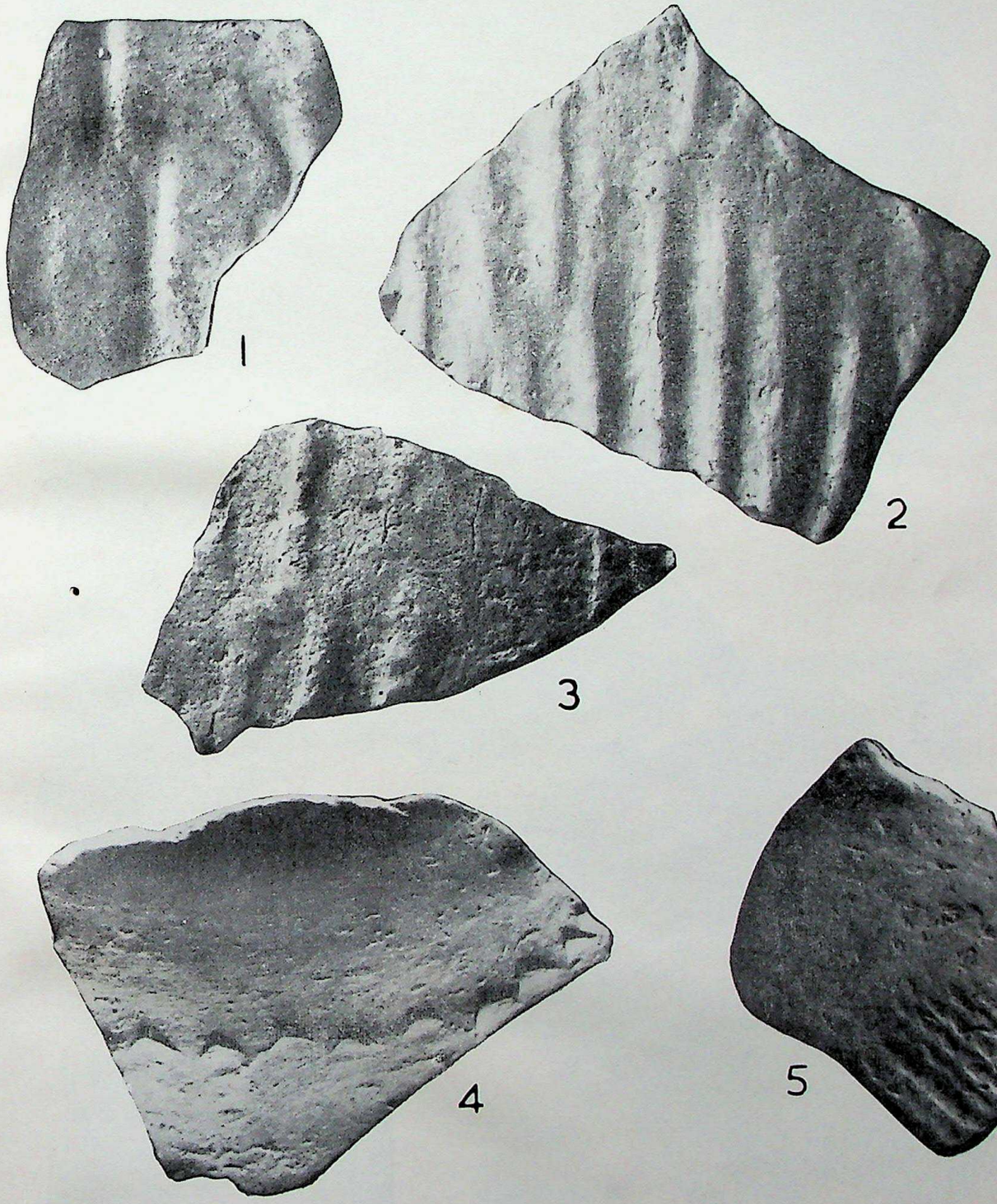

Painted Grey ware; no. 4 (2/1)



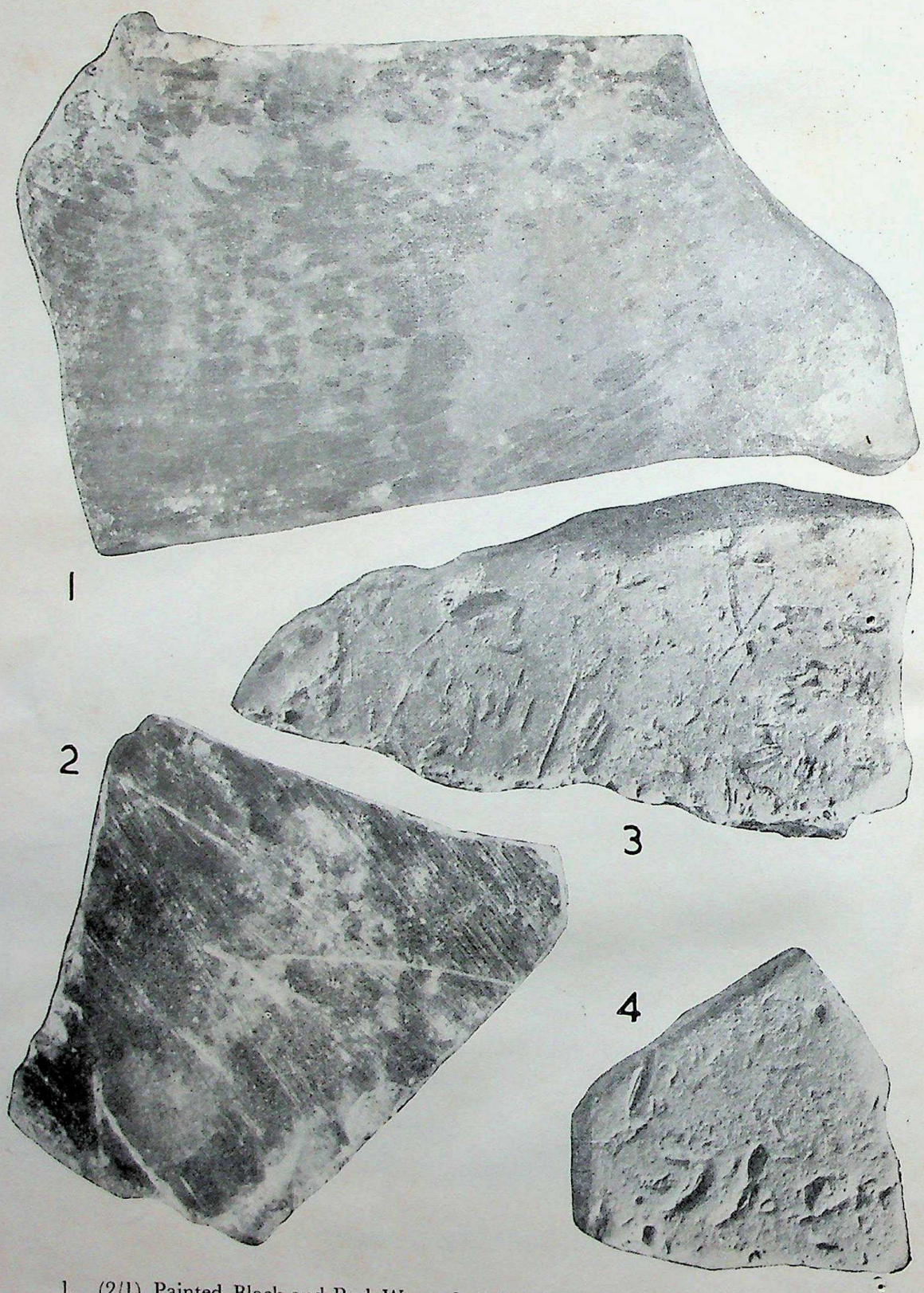

Painted Black-and-Red Ware



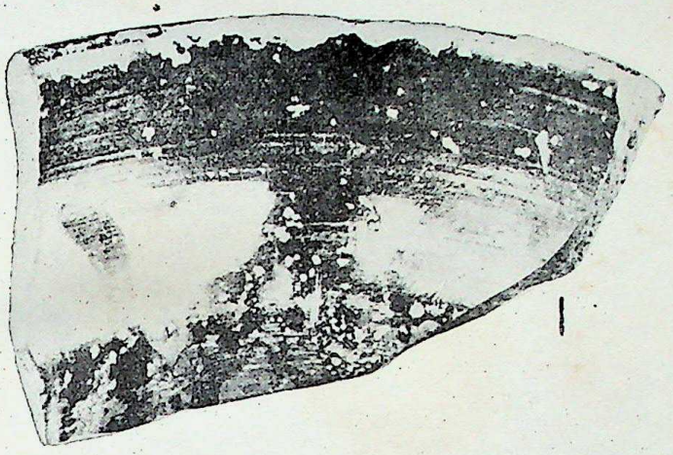

Painted Red Ware; no. 3 (2/1)




Incised Red ware




1. (2/1) Painted Black-and-Red Ware; 2 (1/1), 3 and 4 (2/1) inscribed pottery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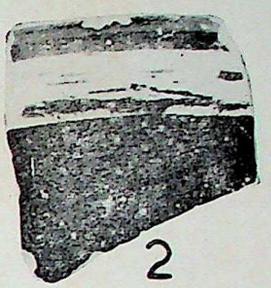
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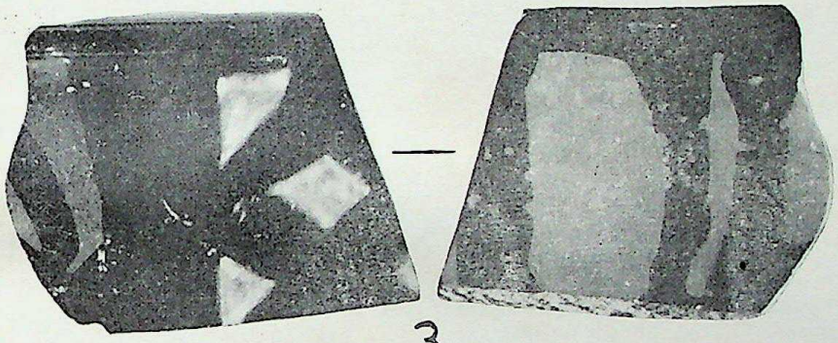
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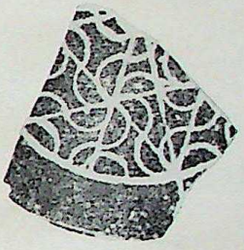
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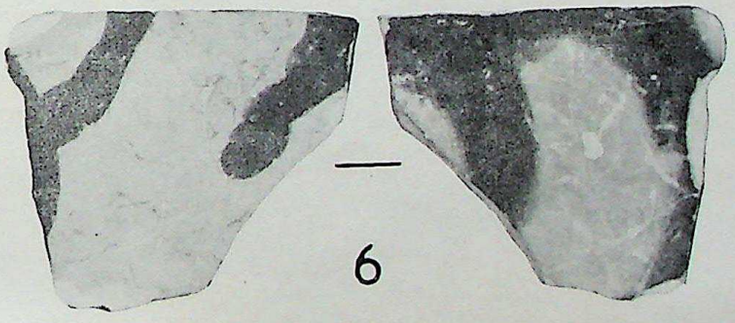
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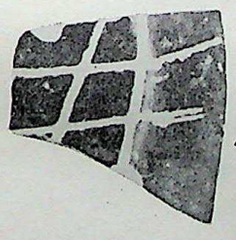
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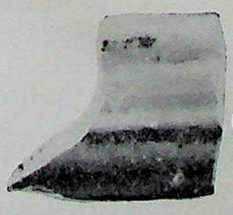
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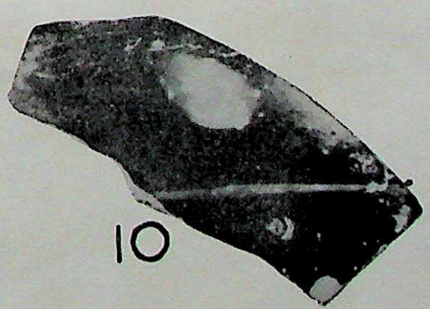
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Painted and incised N. B. P. ware